

Dr. LeGear's Complete Poultry Guide

How To Get More Eggs

Better Fertility
Stronger Chicks
Larger Profits

How to Prevent and Treat
All Poultry Diseases

Feeding Formulas

U.S. Government Experimental
Station, and 43 State Experi-
mental Stations—Also Leading
Egg Laying Contests—This
Book is Valuable to Beginners,
Fanciers, Farmers, Hatchers
and Big Operators Alike.

Edited By

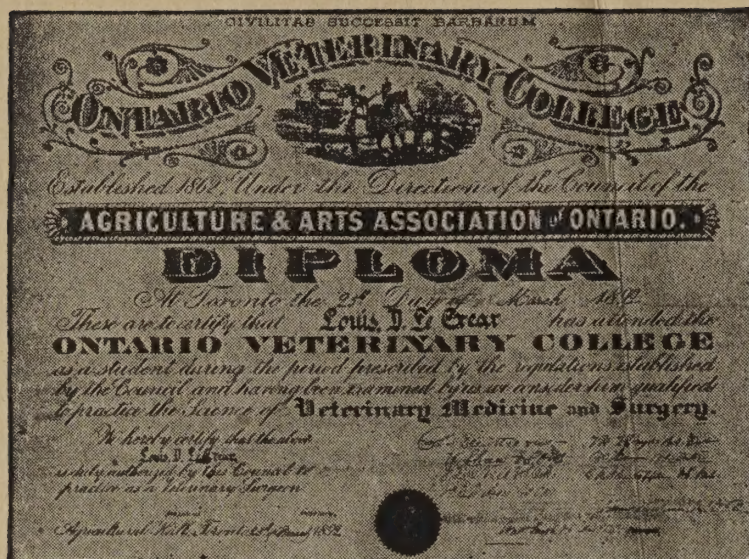
Dr. L. D. LeGear, V. S.
National Poultry Expert

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Dr. L. D. LeGear
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and Feeding Manual





Dr. L. D. LeGear, V. S.

In His Laboratory

In the field of poultry care and treatment, Dr. LeGear stands pre-eminent. Added to Dr. LeGear's years of experience as a practical poultry expert, is his 35 years' study of the anatomy and bodily functions of stock and poultry.

As a Veterinary Surgeon, Dr. L. D. LeGear has been recognized as an authority of national standing for many years.

Graduated from the Ontario Veterinary College at Toronto, Canada, in 1892, Dr. L. D. LeGear has devoted his whole life since then to the treatment and prevention of stock and poultry diseases.

His 35 years' study of the diseases, ailments, habits and vices of poultry—their symptoms and treatment—has given him in this essential department of successful poultry raising a breadth of knowledge and experience that has made him an international authority.

It is undoubtedly true that Dr. L. D. LeGear, by the treatment and care that he has prescribed in thousands of cases of stock and poultry diseases and ailments, has prevented losses that would have run into millions of dollars.

It is this unusual combination of 35 years' medical knowledge, with over a quarter of a century of success in practical poultry raising, that gives to every statement that Dr. L. D. LeGear makes in these fields such importance and value to every poultry raiser.

It is this man, with his lifetime knowledge and years of personal and practical poultry success, who has prepared this Poultry Guide and Feeding Manual, to show you how to make the biggest possible money-making-success in poultry raising.

A Personal Message

It gives me great pleasure to present to poultry raisers of America this my latest book, Complete Poultry Guide and Feeding Manual.

I am confident that it will prove helpful to all interested in poultry raising.

Beginners, back lotters, farmers, exhibition fanciers, hatcheries and operators of large poultry plants, I feel sure, will find many suggestions that will prevent losses, increase egg production, improve fertility, prevent and cure diseases, and—last but not least—increase profits greatly.

I have no apologies to make for those places in this book where Dr. LeGear's Poultry Prescription or Dr. LeGear's remedies are recommended. My purpose is to tell my readers the best way to success and profit. My 35 years' experience as a veterinary surgeon and poultry raiser I feel qualify me to know the best.

I insist that no preparation or remedy bearing my name can be anything but the best there is for the purpose it is to be used.

My sincerity in this is backed by the unconditional guarantee on every Dr. LeGear product of satisfaction or your money back.

My one great desire in preparing this book is to help you with your poultry. Your success means my success, and it means much to me—therefore it is squarely up to me to give you the best advice and suggestions my many years of experience qualify me to give.

Therefore, when I tell you in the following pages that Dr. LeGear's Poultry Prescription added to your laying-and-growing mash will make your birds more vigorous, shorten the time of moulting, aid in keeping the entire flock in health, develop your chicks in bone and body quickly, increase egg production, improve fertility and increase your profits, I am but telling you facts based on experiments covering many years on my own poultry plant and in the hands of poultry raisers throughout the country.

I trust you will find many suggestions in this little book that will prove valuable and profitable to you. Keep it, follow the recommendations given, and you will find greater success with your poultry.

Sincerely yours,

Dr. L. D. LeGear '08.

Poultry Houses

One of the important things in the care of poultry is housing, for the comfort and health of the flock depend largely upon it.

The most important consideration in housing is to secure good circulation of air. So many of the impurities of the fowl are carried off in the breath, that it is of vital importance that plenty of fresh, pure air should be provided.

Fowls are provided with feathers as a protection from severe weather, so care must be taken not to have the house too warm. They cannot thrive in a house warm enough for man.

A splendid location for a poultry house is on a southern slope, not too steep. The best soil is a dry, porous, sandy loam with subsoil of gravel



View showing the southern front openings and side ventilating window in a Dr. LeGear Poultry House. Flock of Dr. LeGear's White Plymouth Rocks.

and covered with sod. Plenty of shade is very important. Surface water should be drained away from the poultry house. It should be easy to and near enough to the house so as to be under observation.

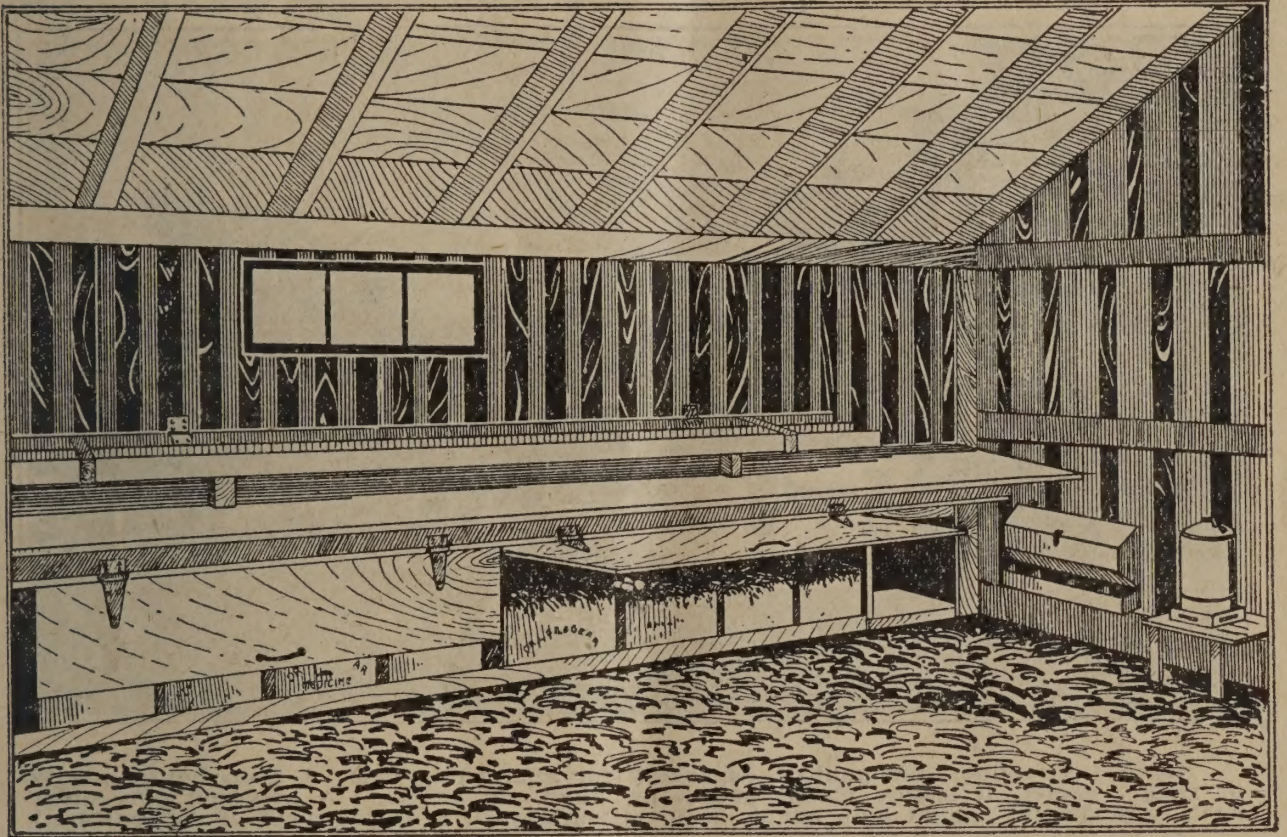
A poultry house should be dry, admit plenty of fresh air and sunlight, and have plenty of floor space for the number of birds.

The floor should be built so that no water can drain from outside into the house.

I do not believe in expensive poultry houses. The cheaper they can be constructed the better, as long as they are dry and comfortable for the fowls. In the warm southern states a dry open shed that can be closed up on the north and possibly the west, to break the cold winter "Northers", makes very satisfactory, healthy, comfortable sleeping quarters for poultry. Up until recent years, especially in all cold climates, poultry keepers invariably housed their fowls in close, tight houses in the hope of keeping them warm. This is a mistake.

There is no doubt but that the fresh air open-front poultry house is the most practical, healthy, comfortable house there is for fowls at all seasons and in all climates. For winter use in the moderate and cold climates they should be absolutely air tight on the north, east and west, but have large openings in the south to admit fresh air and sunshine.

In cold climates I advise less space in front and in extreme cases I sometimes advise partially closing these openings, especially if the house is shal-



Interior of a Dr. LeGear Poultry House. Note the arrangement of roosts, droppings board and nests, the wood curtain covering the nests, the scratching pen, hopper, and drinking pan.

low (12 feet or less deep); if it is used to house male birds, or if it is used for large comb birds like Leghorns or Minorcas.

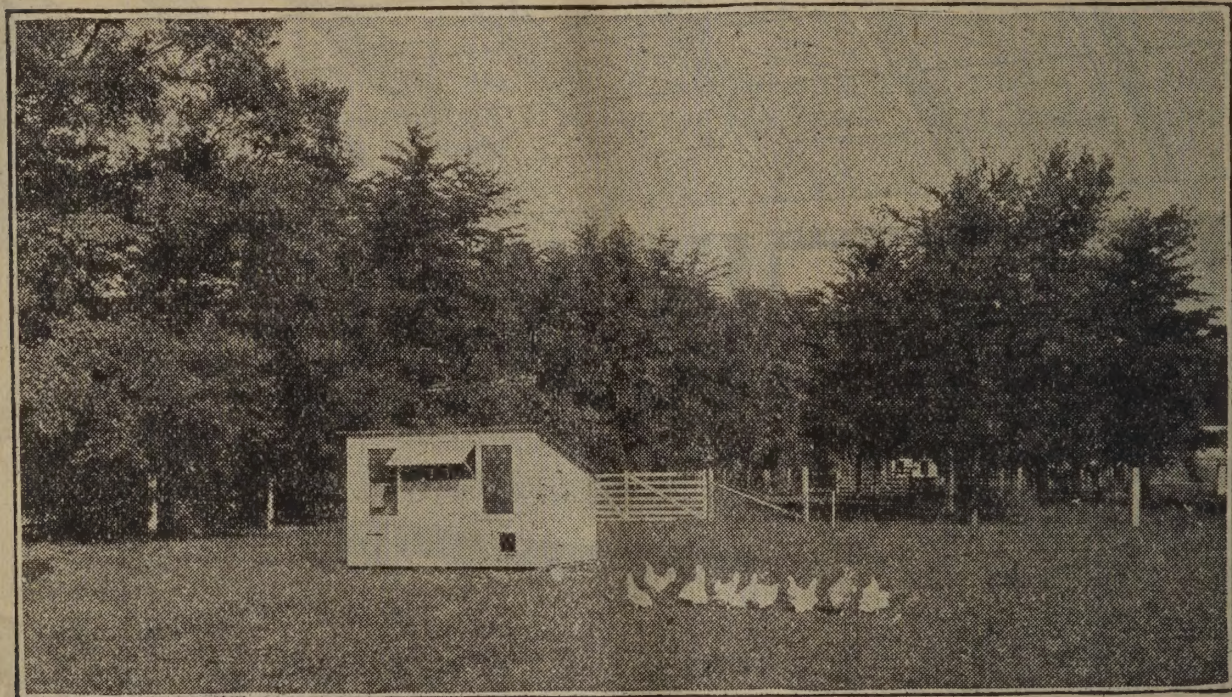
This is best done with thin muslin curtains usually tacked to a light frame and the frame hinged to the roof so that it may be lowered over the southern openings when occasion requires, and then again swung up against the roof and held with hooks. The curtain may also be tacked to a roller and raised and lowered just like an ordinary window shade. Such a curtain will allow air to pass through it, but will at the same time offer protection from cold and prevent frosted combs. I have found that with poultry houses 16 to 20 feet deep there is seldom any occasion to use such curtains, as they are needed only in extremely cold, windy and stormy weather. With houses 12 feet deep, or less, there will be more frequent need of them, because the fowls roost quite close to the openings. But, give the fowls as much air as possible, and do not use the curtains unless you feel it is absolutely necessary.

If white material is used for these curtains quite a good deal of light will come though during the day time, if the curtains must be kept closed

on account of severe cold or a snow storm. White curtains will admit plenty of light during the day for the hens to eat by, even if there are no glass windows in the house.

I do not recommend keeping the curtains down during the day time unless it is absolutely necessary, nor do I recommend keeping them closed at night, unless the weather is very cold or stormy.

Poultry Houses should be at least twelve feet deep or, still better, sixteen feet deep, and have the perches on the north side as far away from the



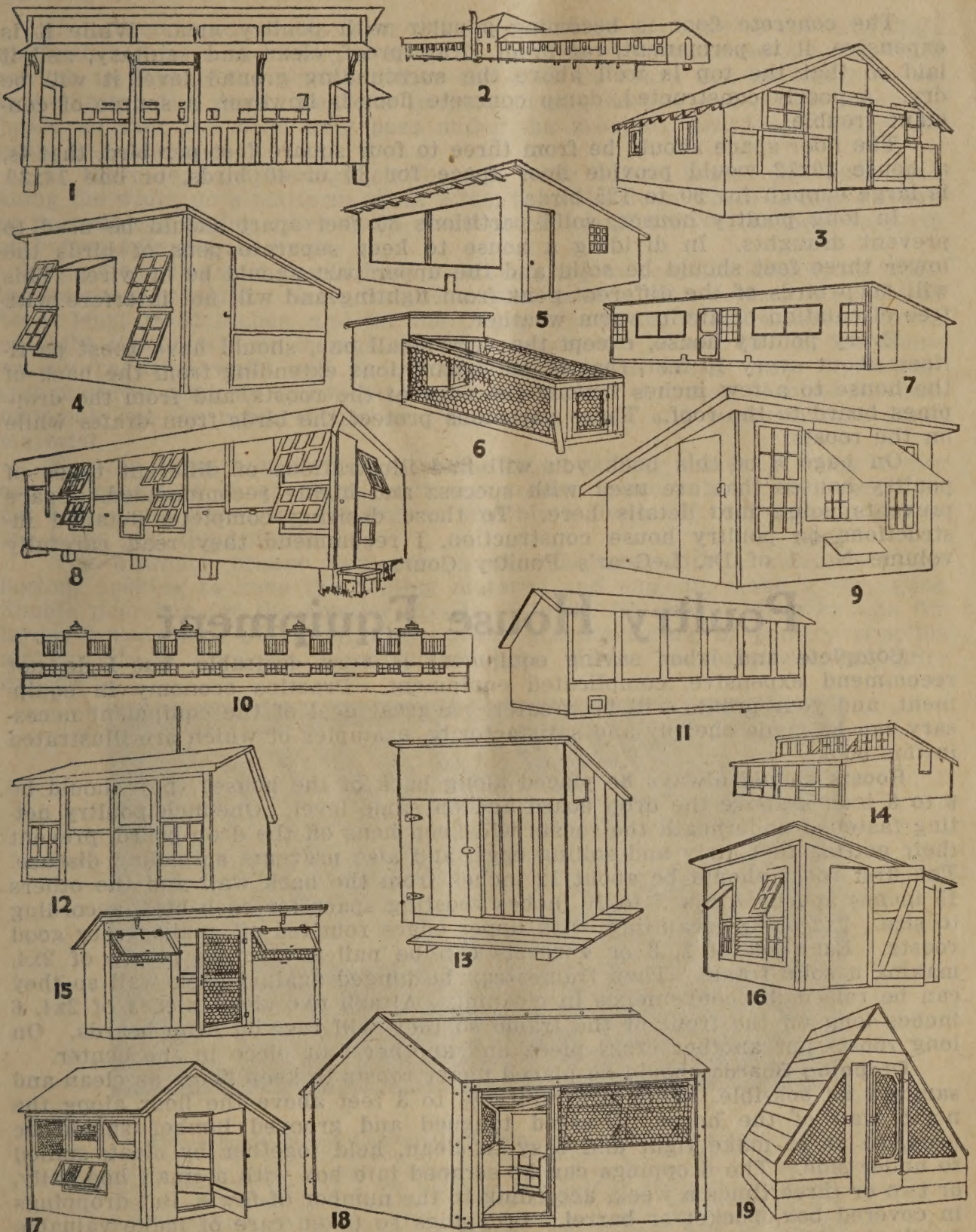
Ideal environment for poultry, especially for a breeding pen. A good house, plenty of range, plenty of shade, plenty of greens, bugs and worms. A breeding pen under such environment cannot help but do well. (Courtesy U. S. Department of Agriculture.)

southern openings as possible. If your houses are air tight on the north, east and west there will be no drafts on the fowls at night, even if the south is open. There will be no moisture, sweating or dampness found in open-front houses, while in the close-up houses dampness will accumulate on the walls, windows, etc., in cold weather, and cause diseases, weakened constitution, etc.

Fresh air is essential to good health; therefore, do not close your birds up in tight houses and expect them to be healthy and vigorous.

Floors can be made of earth, wood or concrete. The earth or dirt floor (also sand) is often used from considerations of economy, as where one is renting and does not care to put in expensive improvements. In the long run it will prove the most expensive and annoying.

I prefer a wooden floor. They should be double, with a layer of building paper between, and the top floor, which should be of some well fitted tongued and grooved material laid at an angle to the lower. Wooden floors are of course the only kind that can be used in portable buildings. The objection that a wooden floor harbors rats, is overcome if the house is built up off the ground as is set out in the building of a "Dr. LeGear Poultry House," by putting 1 inch mesh wire between the two floors or by building a light concrete foundation round the house. Properly constructed wooden floors, if elevated off the ground will not warp, and are easily cleaned.



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|-----------------------------------|---------------------------------|
| 1. Mississippi House | 11. Georgia Laying House |
| 2. New Hampshire Laying House | 12. New Hampshire Brooder House |
| 3. Missouri Laying House | 13. Brood Coop for Setting Hen |
| 4. Purdue Brooder House | 14. Half Monitor Type House |
| 5. Tennessee Poultry House | 15. Small Flock Colony House |
| 6. Brood Coop for Setting Hen | 16. Missouri Fool Proof House |
| 7. New Jersey Multiple Unit House | 17. Colony or Breeding House |
| 8. Purdue Laying House | 18. Small Flock House |
| 9. Georgia Brooder House | 19. Handy Cheap Colony House |
| 10. Michigan Laying House | |

The concrete floor is becoming popular with poultry men. While it is expensive, it is permanent, rat proof, draft proof, clean and sanitary, and if laid so that the top is well above the surrounding ground level it will be dry. A poorly constructed, damp concrete floor is however, a source of constant trouble.

The floor space should be from three to four square feet per bird, that is, a house 10x12 would provide floor space for 30 or 40 birds, or one 14x30 is large enough for 90 to 125 birds.

In long poultry houses, solid partitions 30 feet apart should be used to prevent draughts. In dividing a house to keep separate pens of birds the lower three feet should be solid and the upper part should be of wire. This will keep birds of the different pens from fighting and will not interfere with free circulation of air in warm weather.

Every poultry house, except the very small one, should have roost partitions about every 10 feet, that is, solid partitions extending from the back of the house to a few inches beyond the edge of the roosts, and from the droppings board to the roof. These partitions protect the birds from drafts while on the roosts.

On page 5 of this book you will find illustrations of different types of poultry houses that are used with success and highly recommended. Space prevents going into details here. To those desiring complete, detailed instructions on poultry house construction, I recommend they read carefully volume No. 1 of Dr. LeGear's Poultry Course.

Poultry House Equipment

Complete and labor saving equipment is very desirable, but I do not recommend expensive, complicated equipment. Practice economy in equipment, and your profits will be greater. A great deal of the equipment necessary can be made cheaply and satisfactorily, examples of which are illustrated in this book.

Roosts should always be placed along back of the house; they should be 6 to 8 inches above the drop board and on same level. One-inch poultry netting fastened underneath the roosts will keep hens off the drop board, prevent their getting feet dirty and soiling eggs, and also prevents spreading disease. The first roost should be about 12 inches from the back wall and the others 15 inches apart. Allow 7 to 10 inches roosting space for each bird, according to size. 2x2 or 2x4 scantling, with upper edges rounded off, makes very good roosts. Each set of 2, 3 or 4 roosts can be nailed to cross pieces of 2x4, making a solid frame. Then frames can be hinged against back wall so they can be raised for convenience in cleaning. Attach two short pieces of 2x4, 6 inches long on the front of the frame so they will rest on drop boards. On long roosts put another cross piece and another foot piece in the center.

Dropping Boards should be placed under roosts to keep floors as clean and sanitary as possible. They are built 2½ to 3 feet above the floor along the north wall of the house. Dressed tongued and grooved lumber should be used, so as to make tight and easy to clean, held together by cleats nailed to under side. The droppings can be scraped into box with a small hoe daily, or two or three times a week, according to the number of fowls. Put droppings in covered box, bucket or barrel. Droppings so taken care of make valuable fertilizer. Make dropping boards 3 to 5 feet deep, according to the number of roosts. Make in sections for convenience in cleaning and disinfecting. Sections can be laid on 2x4 scantling to hold them securely.

Nests should never be directly on the floor. If they are placed under the droppings boards, set them up on a platform about 6 or 8 inches high, faced toward the back of the house. Provide this platform with a perch onto which the hens may jump before entering the nests.

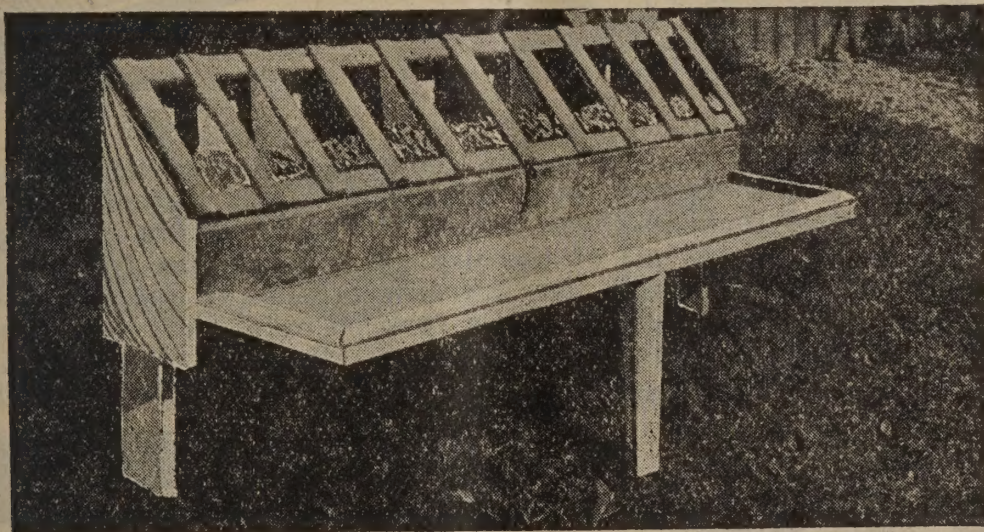
Drop a cloth curtain in front of the nests from the edge of the droppings platform nearly to the floor, or hinge to the droppings platform a board wide enough to darken the nests. Either the cloth or board can be easily raised in gathering the eggs. Leave a proper opening at one end of the cloth or board so that the hens may pass under the dropping board and enter the nests from the rear.

If there is no droppings platform in your house, nests may be placed along the walls, on a platform about 2 feet from the floor, which is high enough to prevent egg eating. Provide a place on this platform for the hens to jump on before entering the nests.

Nests along the wall should have a slanting top to keep the hens from roosting on them at night. Nests for the smaller breeds such as Leghorns should be at least 10x12 inches, and for the larger breeds about 14x14 inches. Seven or eight inches is deep enough for any open nest. Either end of the house or the partition walls will do as locations for the nests. Any dry, clean, soft material, such as straw, hay, excelsior, leaves, etc., may be used for nest material, but the nests should be cleaned out often and replaced with fresh material.

For the small poultry house, or the small poultry raiser, I doubt if any are as good and cheap as an ordinary wooden grocery box, which you can get from your grocer for nothing, or possibly 5 cents. If they are too tall or too large, cut them down.

The ordinary orange box, set on its side, and with a cleat over the bottom opening to keep the nesting material and eggs in, make a very good double nest box for the smaller breeds of fowls, but is not large enough for larger breeds like Plymouth Rocks, etc. Manufacturers of poultry supplies make nests of wire, tin or galvanized iron. These are excellent, but quite expensive.



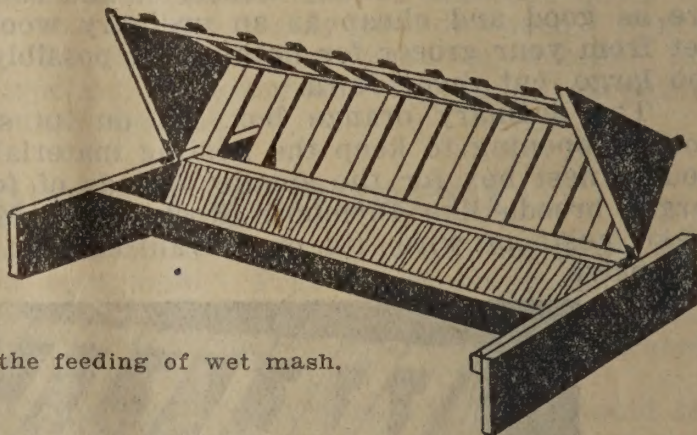
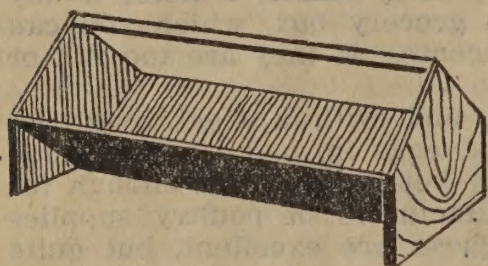
Home-made Single Combination Hoppers used in my breeding pens are very satisfactorily made of $\frac{3}{4}$ -inch lumber, 4 feet long, and built upon three legs 15 inches high, to keep hens from scratching the litter into the feed as I set them on the floor in the scratching pen. The feed trough is 8 inches deep, 12 inches high at the back and 6 inches high in front. The slatted lid is made of wooden laths, hinged so it can be raised for filling. The bottom part of the lid serves as a lip to keep the fowls from pulling out the feed. The platform on which the fowls stand to eat is 7 inches wide and the full length of the hopper. The hopper is divided into four separate compartments into which I put dry mash, grit, crushed oyster shells and crushed charcoal. A double hopper can be made by duplicating this arrangement on other side.

Trap Nests. A trap nest is one equipped with some contrivance for holding a hen captive after her entrance, until released by an attendant.

Trap nests are used first of all to tame birds, which tends to greater production, and next, to furnish definite knowledge as to laying capacity, fertility, breeding ability, traits, habits, etc. Also to help in making pedigree and contest records. While using the trap nest each hen must be banded with some identifying mark or number.

Trap nesting is a very important feature of big egg plants and use by specialty exhibition breeders. In Volume 2 of Dr. LeGear's Poultry Course full details of use, how to make, etc., are given in detail, fully illustrated.

Dust Baths should be provided. Place a box 3 or 4 feet square and 1 foot high somewhere on the floor of the poultry house. It is best to place it in the front part of the house where it will receive sunlight during a greater portion of the day. Fill this box to a depth of about 6 inches with dry, fine road dust, sifted coal or wood ashes, or mellow, dry, fine earth, or a combination of either or all of them, and add to it Dr. LeGear's Lice Powder. I have very little trouble with lice on my birds, because I give them every opportunity to wallow in dusting material to which I add Dr. LeGear's Lice Powder, which I have perfected after many years of work and experimenting.



Easily-made troughs suitable for the feeding of wet mash.

Litter. The floors of poultry houses should be covered with clean litter free from must or mold. In the summer months, 2 to 4 inches deep. In the winter months 6 to 8 inches. Clean straw, clover or alfalfa make good litter. Into this litter scatter all of the dry grain when the feeding is done in the house, so that the birds get exercise scratching for it. The litter should be turned over and leveled with a fork or rake every few days, especially if the hens have a tendency to scratch it all to one side. Remove the old litter and replace it with new, as often as it becomes dirty or damp.

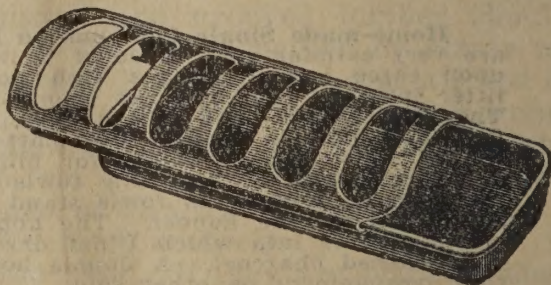


Illustration shows some manufactured feeders for the use of chick, growing stock. Made of galvanized iron, are sanitary and easily cleaned. They may be used for dry feed, wet mash, water or milk, as they cannot be upset. (Illustrations courtesy Hoeft & Co., Inc., Chicago.)

Hoppers for feeding mash, charcoal, grit and oyster shell are necessary. They can be made or purchased at any poultry supply house at small cost. Illustrations are given on pages 7 and 8. In all cases they should be hung on the wall or on platforms, should have sloping hinged tops and placed where they are easy to fill, while sufficient opening should be allowed to have free flow for the mash or other contents, it should not be large enough to permit the birds to soil or waste the contents of hopper. One foot of hopper space is sufficient for 12 hens.

Watering Devices. Eggs are made up of a large percentage of water, and you cannot expect eggs unless you keep fresh water within reach of the hens at all times. No matter what kind of drinking device you use, it is necessary to see that fresh water is given at least once a day, and that the fountain, jar or bucket is kept perfectly clean, as filth in drinking water is certain to cause disease in your flock.



Figure H.



Figure J.

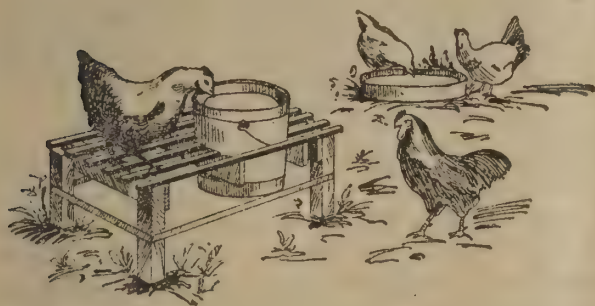


Figure I.



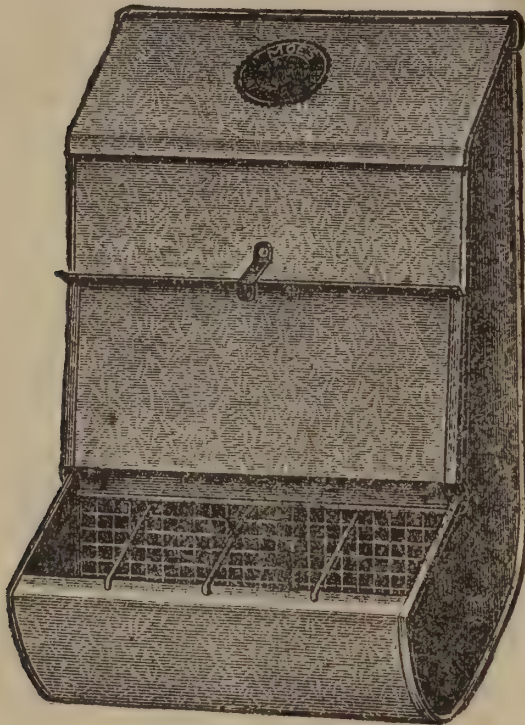
Figure K.

Drinking Fountain.—Figure J is a very convenient and cheap drinking fountain for baby chicks. It is made to fit and to be used in connection with any size glass Mason jar. One fountain will water as many as 25 chicks. Figure K shows another type drinking fountain. I consider it one of the best made. Has double walls which keeps the water cool in summer and retards freezing in winter. Feeds automatically. Fills from the top, thus avoiding the annoyance of spilling water while being filled. Thoroughly sanitary and is easily cleaned. Figure H is a protected water basin. Figure I an ordinary pan and pail. (Illustrations courtesy Hoeft & Co., Inc., Chicago.)

I use earthenware crocks, tin and galvanized pans and pails for drinking vessels for my fowls. I set these fountains on a platform in the house in the winter and outside in the summer, under the north side of my house on a box about 8 inches high, which helps to keep the water clean. When I use pans, pails or crocks for water, I place them in a clean place where the fowls have easy access to them, but protect them so that the fowls cannot dirty the water with their feet. For my baby chicks, I use the specially made drinking fountains shown in illustration above.

Broody Coop. A small slat bottom coop up on the wall of the house or above one end of the droppings board or hung from a tree makes a desirable and convenient place for breaking up broody hens. Coop may be provided with a roost, if desired. Place setting hens in it as soon as you notice them, and they will be quickly broken of their desire to set.

Gates in poultry yards should be of the same height as the fences and provided with springs to make them self closing. The top cross piece should



Above is shown a splendid metal dry mash hopper designed to prevent waste of feed. Can be closed at night to protect feed from rats, birds and weather. The metal oats sprouter has 6 galvanized pans, 5 perforated bottoms. Lower pan has solid bottom to catch drippings. One handy with tools can make similar devices of wood—wood trays with galvanized bottoms. Perforations can be used on sprouter. Both of these devices are splendid for small flocks. (Illustrations courtesy Hoeft & Co., Inc., Chicago.)

be run a foot or more below the actual top of the gate and netting so that the birds cannot fly up and light on top of the gate.

Fences. The height and kind of fence you will need depends on the breed. Heavy breeds will seldom fly over a four-foot fence, while the light breeds, if frightened, can go over almost any height. Usually a six-foot fence is sufficient. This may be made of galvanized two-inch mesh poultry netting, or better still, of the various heavier wire fencing now made with small mesh at the bottom and larger at the top. Never put a top board or rail on a poultry fence. Persistent fence flyers should have the flight feathers of one wing clipped. One inch mesh wire should be used on the lower part of fences for yards where chicks are to be confined.

Statistics show that seventy per cent of all baby chicks hatched die before they reach maturity. You can learn how to guard your tender little babies against disaster and avoid this loss by reading Volume 8 of DR. LEGEAR'S POULTRY COURSE.

Fresh water is very important, and should be kept in reach of the chicks at all times. Dissolve some of DR. LEGEAR'S CHICK DIARRHOEA TABLETS according to the directions in the drinking water and let them have no other water to drink.

Aids That Help Poultry Profits

Water is a very important part of a fowl's daily wants. It should be provided fresh and clean daily in clean vessels. Poultry drink a great deal of water, and it should be kept before them at all times. Baby chicks should have Dr. LeGear's Chick Diarrhoea Tablets in their drinking water at all times, according to directions, and older fowls may be benefitted by having some of Dr. LeGear's Cold Tablets in their drinking water whenever colds or sickness breaks out.

Sprouted Oats are a very cheap and valuable feed for fowls, especially during the winter, and for fowls that are confined to small runs in the summertime. One gallon of good oats will make, when sprouted, about five gallons of feed or enough to feed two hundred fowls.

Sprouted oats should be fed before they get too old or large. They are usually in the best condition to feed when the sprouts are from two to three inches long. Some users of sprouted oats recommend feeding them when they are about one inch tall. I believe the fowls relish them more when they are real young, but, of course, they do not furnish as much feed at this stage. I cut or tear them into small pieces and feed them to the fowls on a clean place on the ground, on the floor, or in the troughs.



A Pen of Dr. LeGear's Prize-Winning White Plymouth Rocks.

The temperature in my basement in cold weather is about sixty degrees F., and the oats sprout well in about seven days. You can keep the trays covered with a wet cloth or oat sack, if you wish, until the oats are well sprouted. This keeps them warmer and they will grow faster in cold weather by this means. In warm weather oats can be sprouted best out of doors, or in the barn, feed house, etc. After the fowls become accustomed to sprouted oats, they can be fed all they will eat of them each day.

Capons. A capon is a castrated rooster; an unsexed male bird; or one that has had his main sexual organs removed by an operation called "caponizing." To become a capon a young male bird must be operated on very much the same way as any other male animal. In order to have some capons all that is necessary is to operate on some young cockerels and remove their reproducing organs (testicles).

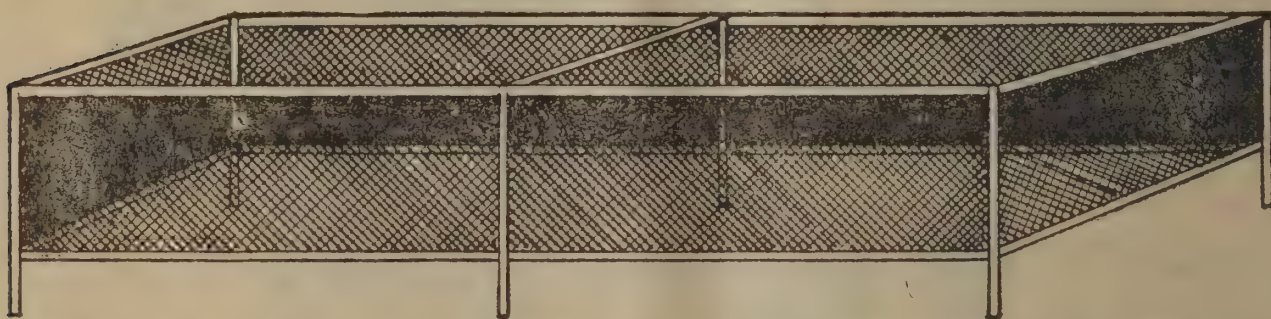
After the operation the capon grows rapidly and develops into a much larger bird than he otherwise would have been. A capon loses his courage and fighting qualities and they will get along just as peaceful as a flock of hens. They grow rapidly and the flesh is very juicy, tender and sweet

and commands the very highest market prices of any fowl meat. High-class hotels and restaurants in the cities are always in the market for capons, and are usually willing to pay fancy prices for them to supply their select guests. Cockerels are generally operated on at from two to three months of age, and are at their best for the table at about ten to twelve months. To make capons is an excellent and profitable way to get rid of your surplus cockerels.

Those that will net you one dollar each as cockerels will net you two dollars as capons. The operation is very simple and can be done by most anyone after a little practice. The larger breeds, such as the Plymouth Rocks, Orpingtons, Brahmas, Rhode Island Reds, etc., will make the best capons, as they grow to be very large. A matured capon will weigh from ten to fourteen pounds.

Capons make excellent foster mothers in brooding and caring for baby chicks. With a little training they will take to a brood of newly hatched chicks and "mother" them much better than a hen will. They will cluck for the chicks and give them every attention and much greater protection than a hen can. They are larger and can cover more chicks than a hen.

Complete detailed information on how to caponize (fully illustrated) and how to make the most money from your surplus cockerels is given in Volume 9 of Dr. LeGear's Poultry Course.



If you cannot give your chicks a separate yard build a flat frame, 14 to 18 inches high, like illustration shown above, with a sill about 4 inches from the ground, covered with netting or slats. Make it light enough to be easily moved. If the whole or part of the top is covered with burlap, roofing paper or other material such a frame can also act as a shade and as a protection for the feed.

Rats. There are no greater enemies of poultry than rats. They are particularly fond of young chicks. Rats can live in any climate and they multiply rapidly. The only way to get rid of them is to wage a constant and merciless war on them. Seek to destroy them by any and every possible means—poisons, traps, ferrets, dogs, cats, etc. The floors of all buildings should be made rat proof as explained in Volume 1 of Dr. LeGear's Poultry Course—keep all houses closed at night and see that your premises are free from the things that attract rats. Keep your feed in rat-proof containers and do not allow any of it to lie about as a temptation to them. Do not allow piles of rubbish, loose stones or loose boards around your poultry yards so that the rats may not have easily accessible breeding places. Keep good cats and dogs about your premises, provided they themselves are free from the desire to eat the chicks.

Sanitation—Lice and Mites. If best results are to be expected, the premises must be kept in a sanitary condition and the fowls kept as free as possible from lice, mites and all vermin.

To keep the house sanitary, remove the droppings from the dropping boards often. Once every two weeks I remove the dropping boards, give

them a thorough cleaning, and spray and sprinkle freely about everywhere and on to everything a solution of Dr. LeGear's Dip and Disinfectant. Renew the litter every two or three weeks or as often as it becomes soiled, dirty or damp.

Keep the feeding and watering devices as clean as possible. Remove all unnecessary material and rubbish from the house and yard. Keep the yard spaded up and planted during the summer, with some quick-growing grain.

A hen cannot be profitable if she is tormented by lice and mites, as these parasites sap the blood and energy that otherwise would go into egg production. Provide a dust bath in the poultry house at all times for the convenience of the birds. If this measure is not sufficient to keep the flock clean, I dust my fowls thoroughly with Dr. LeGear's Lice Powder.

Mites are more troublesome than lice. They do not live on the bird like lice, but hide in the cracks of the house during the daytime and come forth at night to attack the birds. To eradicate mites, I remove all loose material, thoroughly sweep and clean out all the dirt, dust and litter, paint roosts, and spray all the inside of the house with a strong solution of Dr LeGear's Dip and Disinfectant.

Do not be misled as to the importance of keeping poultry free of lice and mites. You may have the finest kind of house, and feed the best of food, yet, if your poultry are pestered with lice they cannot and will not lay well or be healthy. You will realize the importance of combating lice and mites, if you will read Volume 12 of Dr. LeGear's Poultry Course.

Culling, as generally understood, is the observation and examination of each individual hen or pullet for the purpose of ascertaining its laying ability or exhibition qualities as disclosed by certain external physical signs and characteristics; and the determination, based on such an examination, to retain or dispose of the bird examined. In a broader sense, the term may be applied to an examination of either males or females.

No other knowledge has been of greater value to the poultry industry than this knowledge of how to systematically cull out the poor layers. I am convinced that between 30 to 40 per cent of all hens and pullets in the United States do not lay enough to cover the cost of feeding them, let alone caring for them.

The ability to spot the right kind of hen is valuable because of the hen's short productive period. Determine whether or not she is profitable, before she eats a lot of expensive feed or transmits her inability to lay profitably to a lot of offsprings that will also consume feed without result. If the pullet or hen is not a good layer, it is better to take what she will bring on the market, in summer or fall, than to spend money for good feed all during the winter, which feed she cannot convert into eggs.

For more definite and complete instructions just how to cull hens I can refer you to Volume 5, Lesson 13, of "Dr. LeGear's Poultry Course." By following these instructions you can easily cull out all the drones from your flock.

Broody Hens. Broodiness in hens causes considerable trouble during the summer months. I have very little trouble in breaking up my broody hens. A good method of breaking up a broody hen is to put her in a cage about two feet square with a slat bottom and hang the cage by one rope to a limb of a tree in the shade. Whenever she moves the cage will move, which will keep her busy trying to keep on the level. Give her water, plenty of laying mash—to which has been added Dr LeGear's Poultry Prescription—and good grain, very little corn, and you can soon break her up.

If I have 3 to 6 broody hens at a time I put them all into a coop three by five feet in size and open on one side except covered with poultry netting.

I keep straw on the floor and give the hens feed and water as above given. One hen will not let another set down during the day time, and they are constantly fussing and fighting among themselves and seem to forget about being broody. In three or four days they are ready to go back into the pen, and in a few days are laying again. It is a great mistake to starve a broody hen. It does no good as far as breaking her up, and if you get her poor in flesh, it will be weeks before she will get in condition to lay again. It is a cruel practice to shut a broody hen up in a small box for several days without feed or water, as some do, especially in hot weather.

Separation of the Chicks.—As soon as the cockerels begin to be troublesome, which is usually from the third to the sixth month, depending on breed and individuals, separate the sexes, so that there will be no interference in the proper growth of either sex.

Shades and Shelters.—If your yard does not afford an abundance of shade against summer's sun, you must provide it, either by planting trees and shrubs, or constructing some kind of shade or shelter. I provide summer comfort for my fowls, by having my houses built up on posts. On hot summer days they will always be found under the houses where it is cooler than anywhere else on the plant. Shades or shelters may be solid or of canvas or burlap stretched over poles, etc. These shades and shelters also serve to protect the food and water supply from the sun, and if they are solid, from all rain as well.

Warning—Don't Overcrowd.—There is a limit to the number of fowls that can be successfully raised on a small patch of ground and the city dweller will be better off if he is successful with a few birds than unsuccessful with a lot of them. Keep only as many birds as can be accommodated comfortably in your houses.

Table Scraps. A considerable portion of the ration of the back-yard flock may be made up of table scraps, such as bits of fresh or cooked meat, stale bread, left-over vegetables, beet or turnip tops, waste, cabbage or lettuce leaves, spinach, etc. Sour milk is also a very fine addition to the ration of poultry. But the table scraps must be clean and fresh. Table scraps do not mean garbage or refuse. There are some things that a chicken should not eat, such as decomposed or moldy meat, bread or cake, tough parings or pods, offal, banana, lemon, orange, or grapefruit skins, seeds, etc. Dishwater should not be mixed with the scraps intended for poultry. Table scraps cannot wholly take the place of either grain, mash or greens. They are excellent to add variety to the ration, but must be supplemented with grain or mash.

Preserving Eggs. During the spring and early summer is the time when eggs are more plentiful and cheap, and it is at this season that preserving eggs for future use is most profitable. If you wish to keep some of your oversupply of eggs for use when eggs are scarce in the fall and winter, you can do so to the best advantage by putting them down in waterglass. This waterglass (silicate of soda), which can be obtained at most any drug store, is a syrup liquid, which should be mixed with nine parts of water which has previously been boiled. The solution should be kept in a clean receptacle, such as a crock or stone jar. Kegs or barrels may be used, provided they are scalded thoroughly and are absolutely free from odors. Fill the jar partially full of the waterglass solution and then put the eggs in as you gather them from day to day, but they should remain at least two inches below the surface of the solution.

The eggs should be absolutely fresh; they should be put down the same day they are laid. No dirty-shelled or cracked eggs should be used.

The cost of preserving eggs by this method is very small, and if they are stored in a dark cool place, they will keep until the following winter as a very good article of food.

Swat the Rooster. As soon as the hatching season is over you do not need the male birds with the hens again until next breeding season. Hens will lay just as well, if not better, without the roosters being with them, therefore remove all of your male birds from your hens and either sell them, slaughter them, or put them in comfortable pens by themselves until needed again for breeding.

Fertile Versus Infertile Eggs. An infertile egg will keep fresh much longer than a fertile one. The fertilizing of the egg by the male birds causes them to spoil in a short time in hot weather unless they are kept in a very cool place. Heat causes the germ in the egg to grow, and as soon as growth is started the egg is soon spoiled or is not a fresh egg. I have taken infertile eggs from my incubators after the tenth day of incubation and still found them comparatively fresh, while if eggs are fertile they will be practically spoiled after two or three days in an incubator. Fertile eggs will spoil in warm weather if not kept in a cool place, almost as quickly as they will in an incubator or under a setting hen. Eggs should be gathered twice each day, and in hot weather marketed at least twice a week. The nests should be kept in a clean dry place and should have clean litter in them at all times. All soiled, small and deformed eggs should be used at home. Eggs of a good, uniform size and color command a higher price.

Artificial Lighting. Lights in poultry houses, or working hens overtime, as it is sometimes called, is being carried on by poultrymen quite extensively and profitably. Accurate records show that to lengthen a hen's working day will in many cases increase her egg yield from 25 per cent to 100 per cent. During the fall, winter, and spring, when the natural days are short, lights can be used in the laying houses in the mornings or evenings, preferably mornings, and lengthen the day several hours, if necessary. Four o'clock in the morning seems to be about the best time to turn on the lights, and leave them on until daylight. This will give about a fourteen-hour day, which gives the hens more time to eat and digest food and causes them to lay more eggs.

It is not the lights that cause the hens to lay, as some imagine, but it is the lengthened day which gives the hens more time to eat and digest more food. Gas lights, electric lights, or oil lamps can be used, but they should be large and bright, so as to duplicate sunshine if possible. Electric light are preferable and 75 or 100 watt lamps should be used.

Leg Bands. To distinguish my birds I have always used some sort of leg band. There is a great variety of them. Some are numbered, others colored, and others colored and numbered.

Shipping Coops. Every farmer knows how to build a coop for shipment. Shipping coops are built by manufacturers in standard sizes, and can be very economically bought.

Egg Shipping Cases. These are so economically secured through manufacturers that it does not pay to make them. The same is true of cases for shipping eggs by parcel post.

Nest Eggs. It is a tendency of a hen not to lay in an empty nest. Keep nest eggs in all of the nest so that the hens will use all of them. Some nest eggs are made of white porcelain. Others of a composition which contains a disinfectant and lice killer.

Toe Punch for marking baby chicks in the web between the toes is handy and necessary where you wish to mark and pedigree chicks from certain hens or certain pens.

Sprayers. A good sprayer is absolutely indispensable about a poultry house, so that the walls, nests, roost, etc., may be thorough disinfected. There are various kinds of hand and pump sprayers made. I recommend the Dr. LeGear's Sprayer as it was adopted after experimenting with various kinds.

Selecting the Breed

What is the best breed of poultry? Every now and then some one says to me—"Doctor, from all your experience, which do you consider the best breed of poultry?" And these people are somewhat astonished when I say to them—"There is no best breed." A hundred years ago there were perhaps a dozen different kinds of chickens; today we have some two or three hundred different breeds and varieties in America alone. Each breed has its good points and its defects. If one particular breed possessed all the good points and none of the defects, everyone would choose that breed, and never think of any other.



To the left a sharp-breasted egg type. To the right a full-breasted meat type. The difference in the amount of meat on the carcass can easily be seen and explains why the bird on the right is preferred for table purposes to the one on the left. (Illustrations courtesy American Poultry Journal.)

Select the breed you like best, because you will give better care and have more pride in them—therefore get better results and profits. In making your choice, it is well to consider whether you want just egg production or want both eggs and meat—or for exhibition purposes. It is possible now to select birds that combine all features to a great or less degree. Whatever variety you select, I urge you to select standard-bred chickens, because they are best and most profitable. Then keep them in good health, appearance, and egg laying condition. Use Dr. LeGear's Poultry Prescription in all growing and laying mash and use Dr. LeGear's Dip and Disinfectant in your houses—you can do this easily and cheaply—and the results will pay you handsomely. It is well also to consider the available room you have as some varieties stand confinement better than others.

Breeding a popular kind of fowl insures a better market for stock and eggs. If eggs are to be the chief source of revenue, you must also determine whether your market desires white or brown eggs. For general purposes, the White and Barred Plymouth Rocks, the Rhode Island Reds, White Wyandottes, and Orpingtons are the most popular varieties. For

egg production alone, the Single Comb White Leghorn is almost universally bred; for heavy market stock and roasting chickens the Brahmas and Jersey Blacks seem to be the favorites.

To all poultry raisers, I recommend them to raise good, high quality stock—it costs no more to raise than scrubs, and will always sell for higher prices.

Limited space prevents my describing fully all the different breeds, their



Upper circles, White Plymouth Rock and Barred Plymouth Rock. Center, White Wyandotte. Lower circles, Rhode Island Red and White Leghorn.

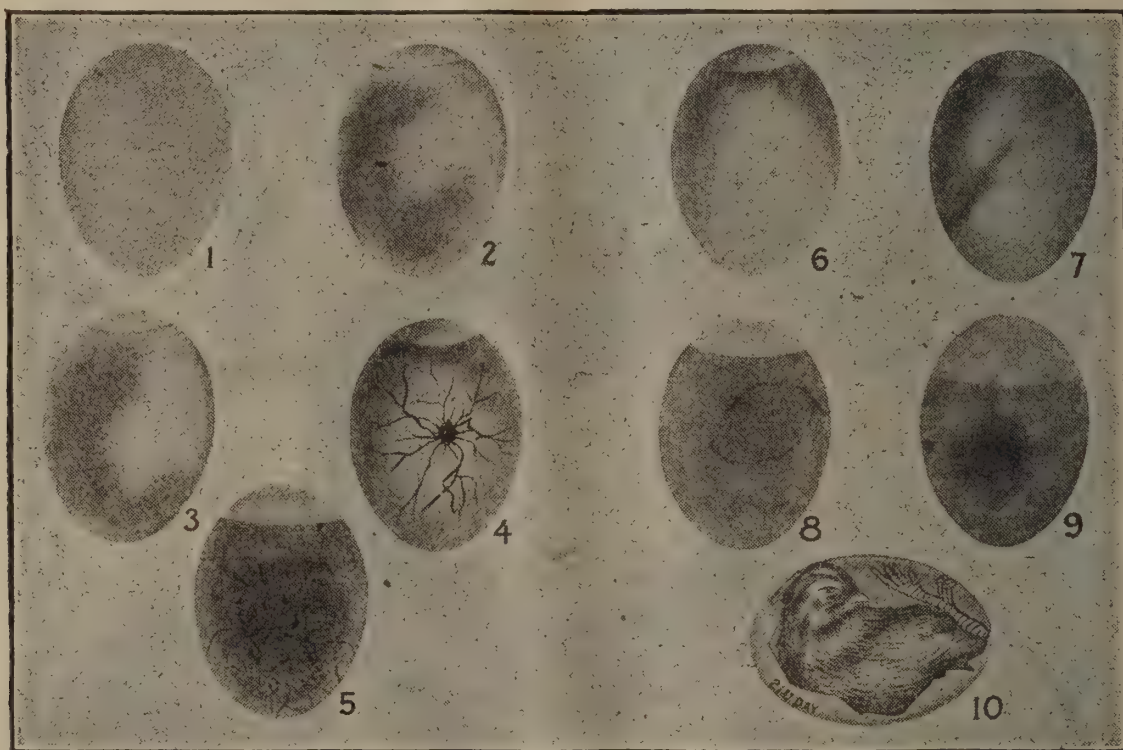
good qualities and faults, and I can only illustrate a few of the more popular varieties. To those who want full description of the different varieties and want to see beautiful illustrations of birds of some of America's most noted breeders, I suggest that they turn to volumes 3 and 14 of Dr. LeGear's Poultry Course.

If you buy stock insist upon their being strong, sturdy, vigorous, healthy individuals. Any male or female lacking in health, vigor, or developments is worthless no matter how excellent in other ways. Therefore, insist on good breeding in your birds, which will show in their color, shape and size, and with good history as egg layers back of them.

Hatching and Growing Chicks

The success or failure in the poultry business oftentimes hinges upon our ability to raise good, vigorous chicks.

In selecting eggs for hatching the eggs should be selected from parent stock that is mature, healthy and properly fed, housed and cared for. To incubate well they should be uniform in size, shape and shell texture, and gathered daily (oftener in severe cold weather.) If not set at once, should be placed in cartons or egg cases or racks and stored in an ordinary cellar



Appearance of various eggs at different stages of hatches, as seen through the egg tester: 1. Infertile egg at 36 hours. 2. Fertile egg at 36 hours. 3. Fertile egg at 48 hours. 4. Fertile egg at 5 days. 5. Fertile at 14 days. 6. Infertile egg at 8 days. 7. Dead-germ egg at 6 days. 8. Dead germ at 10 days. 9. Dead germ at 14 days. 10. Chick at hatching time. (Illustrations courtesy Buckeye Incubator Company, Springfield, Ohio.)

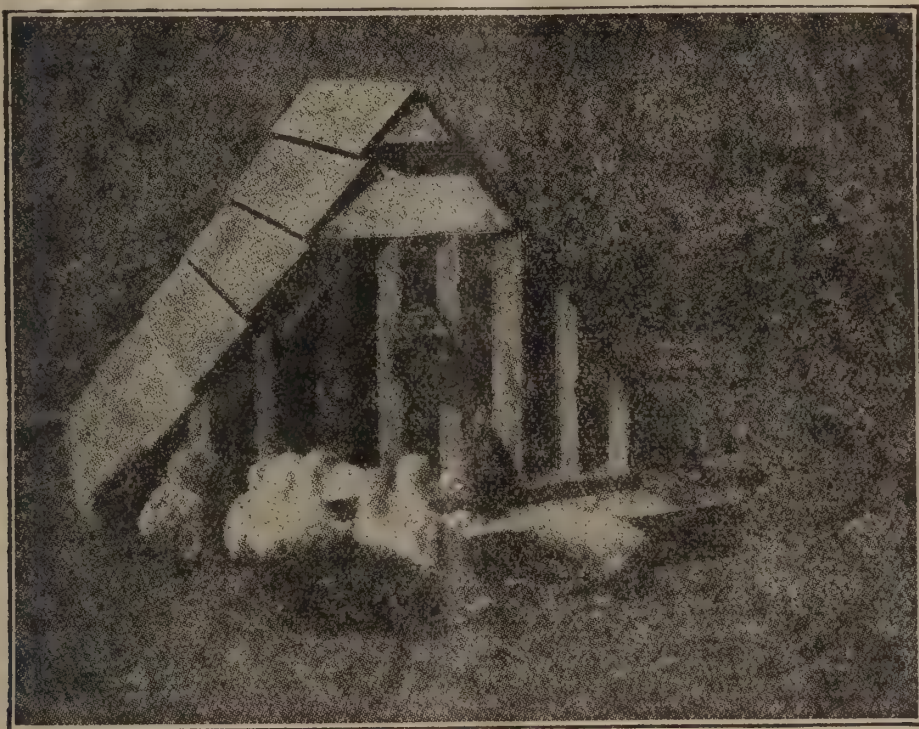
Eggs held for over 10 days should not be set. If held over four days, they should be turned daily. Do not wash eggs intended for incubation.

Natural incubation. Where a small flock is kept and only few chicks hatched each year, it will be better and cheaper to set eggs under hens. Select a hen of good health, medium size, quiet disposition, and unfeathered shanks. A good hen properly set will generally give somewhat better hatches than the best incubator, but in large flocks the gain is not sufficient to balance the many advantages of incubators* for large flocks.

Setting a hen. Select a quiet, gentle, large hen that is at least one year old. Fix her a comfortable nest in some quiet place to herself. Give her a warm place in winter and a cool place in summer. Try and imitate nature by putting her nest on the ground or put earth in the bottom of the box and cover it with fine straw or leaves. Have her nest quite dark, and put her on her new nest at night, and put one or two nest eggs in it. You may have to shut her on the nest the first day. If she remains on her new nest for two days it is then usually safe to put the eggs under her. I put fifteen eggs under my large hens. Smaller hens should be given less. Keep fresh water, feed and grit convenient where she can get it every time

she comes off. I dust my hens when I first set them with Dr. LeGear's Lice Powder, and dust them again about the seventeenth day. This kills all lice on them, and prevents the baby chicks from becoming infested as soon as hatched. I test the eggs on the tenth or twelfth day and remove all infertile and dead germ eggs. Try and keep the hen on the nest until the chicks are about two days old, when they can be taken off and watered and fed.

It is a good plan to set two or more hens at the same time so that in case the hatches are poor the chicks may be divided into good size broods, and the surplus hens returned to the flock. Feed and water setters daily and have a dust bath where they can get at it. Do not disturb hens while eggs are hatching.



Type of brood coop common found on our general farms. They may be made of waste lumber. It is a good idea to cover or line the back and sides with roofing paper to make them draft proof. The slats confine the hen, but the openings between them enable her to watch the chicks and secure foods and allow the chicks to enter or leave the coop at will. (Courtesy Missouri State Poultry Experiment Station, Mountain Grove, Missouri.)

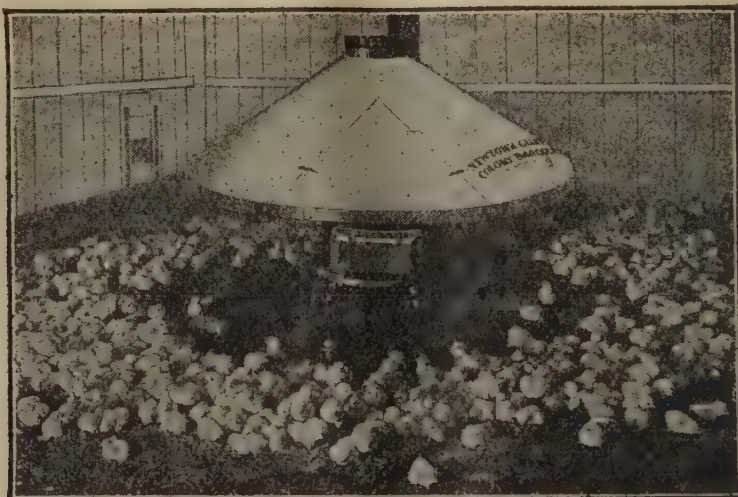
Incubators. Buy the best incubators you can get, as it does not pay to buy machines that are too cheap. I have three kinds of incubators in use, but I cannot see much difference in the result from them. I am convinced that any good standard incubator will do good work if run according to the maker's directions. Half the success or failures with incubators depends on the operator. You should study carefully the directions that come with an incubator and then follow them to the letter. The manufacturer should know more about running the incubator he makes than you do, so do as he instructs and success will be yours.

An incubator should be run in a well-ventilated room where the temperature varies but little during the twenty-four hours. Get the machine well regulated as to temperature before putting in the eggs. Either use the best grade of kerosene oil in your incubator lamps or use a gas burner, or electricity. I thoroughly clean up and disinfect my incubators after each hatch and have never had a case of White Diarrhoea yet. I am sure that thorough disinfection is a great preventive against White Diarrhoea.

After each hatch I remove and wash all movable parts, such as the egg tray, nursery, etc., with a solution made by mixing two tablespoonfuls of

Dr. LeGear's Dip and Disinfectant with a pan of warm water. I then spray the whole inside of the machine thoroughly wet with some of the same solution. I then put in the egg tray, nursery, etc., and shut up the machine and run the lamp until all parts are dry. If I wish to run the machine again, I will put in another lot of eggs as soon as the temperature is regulated.

Incubation is an art in itself. Study volume 7 of Dr. LeGear's Poultry Course—it will tell you all you need to know about placing, operating, and regulating incubators.



This illustration shows a large coal-burning colony brooder. A large stove of this kind permits the chicks to be comfortable some distance beyond the canopy itself. (Courtesy Newtown Giant Incubator Corporation, Harrisonburg, Va.)

Time of incubation. Different kinds of birds and poultry require different lengths of time to hatch their eggs. It requires the same length of time for a hen as it does for an incubator to hatch the same kind of eggs, provided the hen sets well and the incubator is run at the proper temperature. Fresh laid eggs, especially those with good strong germs in them, will hatch several hours sooner than the older eggs. Below is a partial list of the time it takes to hatch eggs:

Chickens	21 days	Peafowls	28 days
Ducks	28 days	Guinea Fowls	25 days
Turkeys	28 days	Swan	42 days
Geese	30 days		

Poor Hatches, and dead chicks in shell, are from many causes, such as eggs too old, low vitality of breeding stock, eggs from too young stock, faulty operation of incubator, chilling and overheating of eggs, grease on shells—undoubtedly one of the great causes is low vitality and vigor of breeding stock. You can avoid this by using Dr. LeGear's Poultry Prescription in all feed mashies given breeders.

Management of the Hen and her brood. There is no hard and fast rule regarding the care of chicks. As a rule, even if the weather is pleasant, chicks should be confined to their quarters for the first day or two so that they may become accustomed to their home and given a chance to rest. During their early growing period they should not be permitted to go very far from their quarters, as they are not very strong and have not the wisdom to protect themselves from enemies. Confine them with a runway or a temporary yard made of one-inch mesh netting, two feet high. The matter of their food is taken up in detail later.

The hen may be confined in the brood coop until the chicks are weaned, allowing the chicks to range in the immediate neighborhood. Every evening

see that they are in their coop, because ordinarily the hen and chicks should have protection at night. If a hen is out all night with her brood, the chances are that she will lose many, if not all of them.

Artificial Brooding. There are many kinds and makes of brooders and of varying capacities. They are operated with oil, coal and electricity. For larger flocks the so-called colony brooder stoves are becoming popular, as they are simple in operation and reduce labor. Brooders should be placed preferably in a well-constructed house or room with plenty of light and ventilation. Follow carefully the manufacturer's directions for operating the brooder. Ordinarily, brooders are run for the first 3 or 4 days at a temperature of 95 to 100 degrees. This is gradually reduced 4 to 5 degrees a week until chicks are feathered.

Feeding Young Chicks

For the Beginner as Well as Experienced Breeder.
Suggestions that Mean Success.

Feed Often. The main features in baby-chick feeding are to feed often (small quantities at a time) of sound, fresh, sweet, wholesome feed of a liberal variety, and to have as near a balanced ration as possible. It is real economy to buy the best feeds obtainable for young chicks, so that they may get a proper start. Chickens must get a good start if they are to develop into vigorous growing stock and good layers.

First 3 Days. Nature provides nourishment for the chick for the first two or three days of its life. For this reason chicks should not be fed until they are from 48 to 60 hours old.



Actual photograph of a Barred Rock Capon brooding chicks that were hatched in an incubator. (Courtesy Geo. Benoy, Cedarvale, Kan.).

I wish to caution all who raise baby chicks of the danger of feeding too soon after hatching. I have seen so many promising broods of chicks ruined by feeding too soon. A large percentage of the so-called White Diarrhoea cases

are caused wholly by feeding too soon or by improper feeding. Get your chicks started off right, and you are a long way on the road to the successful raising of them.

When I speak about feeding chicks within the first 48 to 60 hours I mean giving them solid food like grain, mash, greens, etc. I do not mean to convey the idea that they should not be allowed to drink water or milk, or that they should not be allowed to pick at fine grit or charcoal. Water, milk, grit and charcoal may be placed before them as soon as they are transferred from the nest to the brood coop. Dissolve Dr. LeGear's Chick Diarrhoea Tablets in all the drinking water for the first three weeks.

Feeding the First Two Weeks. About 48 to 60 hours after hatching, chicks should be given their first meal. All feed given to them the first day or two after they are old enough to be fed should be given on clean paper or in shallow trays so that the chicks may easily see the food and learn to eat it. Ordinary tin pie plates or paper lunch plates are very good for this purpose.

Just what is the best feed for baby chicks for the first few weeks of their lives is a widely disputed question. Some authorities recommend wet feed—others, dry feed. There is no doubt in my mind but that dry feed is better than wet feed. Sloppy feed should never be fed at all. A variety of feed is quite important, especially after the chicks are a week old.

Do not feed too much. It is dangerous. Feed often and a small quantity at a time. Baby chicks should be fed about 5 times each day, or about every 2½ hours, for the first 2 weeks of feeding. But at each feeding they should be given only what they will clean up in about 15 minutes and the balance should be taken away until the next feeding. However, just a little grain may be left in the litter so that the little fellows may be kept busy scratching for it. It is better to keep them hungry than to stuff them the first week. About 1 ounce of grain feed for 100 Leghorns for the first day, 1½ ounces the second day, and 2 ounces the third and fourth days is about right for each feeding after the first 48 to 60 hours. As they grow older, increase the amount a little with each day. The larger breeds will require a little more than the amounts above specified.

Scatter a little grain and fine grit in the litter the first day or two after you start feeding them and teach the little fellows to scratch. If they find some of the grain in the litter, they will learn to scratch quite readily and, as soon as they learn to scratch, all their grain feed should be fed in litter, as exercise is very important for baby chicks. It causes growth and wards off disease. It is very interesting to watch the little fellows learn to scratch. One will start scratching and the others will be scattered and will soon be doing likewise, and then you will have a busy bunch every time grain is put into the litter.

I have tried a great many methods of feeding and many kinds of feed for baby chicks, but the method I will enumerate here has given me better satisfaction and has caused my chicks to do better, grow faster and develop into better-matured birds than any other.

For the first day (after they are 48 to 60 hours old), morning, noon, and night give them a good grade of commercial chick grain. Give them what they will eat up in a few minutes. From the second to the fourteenth day let the ration contain about one-third of pin-head or steel-cut oatmeal, which you can get from your grocer, and two-thirds chick grain. Mix and feed morning, noon and night what they will clean up in about 10 or 15 minutes.

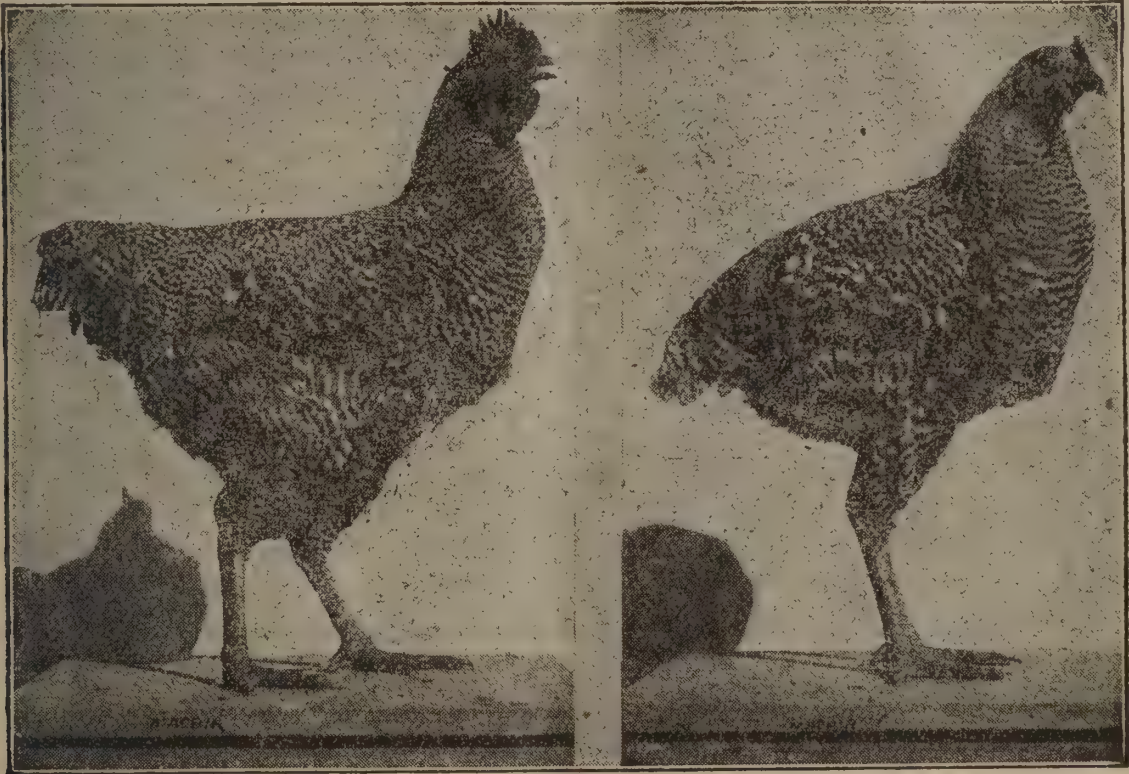
On each of the first 14 days of feeding, in the middle of the forenoon and middle of the afternoon, give hard-boiled eggs, ground up shells and all, mixed with an equal amount of dry, stale bread crumbs. Give the chicks on trays what they will eat of this in 10 or 15 minutes. Two eggs to from 50 to 75 chicks is about the right amount to be given each day for the first week. Increase the number of eggs to 3 for the second week. After about the fifth

day a little wheat bran and oatmeal may be mixed with the bread crumbs and eggs. If necessary, just a little buttermilk may be added to the egg, crumbs, bran and oatmeal to make it just damp. The chicks will eat it in this form more readily. Keep charcoal, grit and water before the chicks at all times. Raw eggs may be mixed with dry mash and fed instead of boiled eggs.

On the third or fourth day of feeding put some wheat bran on trays and let the chicks eat all of it they wish. Give them the wheat bran every day thereafter, either separately or as one of the ingredients of the mash.

Fresh buttermilk or sour milk is excellent for baby chicks, and if it can be had at a reasonable price, give the chicks all they will drink of it from the very first day. It can be put in suitable drinking vessels arranged so that the chicks cannot get in and thus dirty the milk or wet themselves. If plenty of milk is fed, it is not necessary to feed so many boiled eggs.

Green feed in some form should be given to baby chicks every day after they are a few days old. In the early spring or winter the tops of sprouted



Which would you choose to head your pen of breeders? Note difference in depth and width of body, shape of head and strength of thighs—a difference between strong and weak constitutional vigor. (Courtesy Agricultural Experiment Station, Kansas State Agricultural College.)

oats or hothouse lettuce can be cut up fine and fed to them. Later in the spring or summer, of course, they can get green grass from the front lawn or backyard.

When chicks are about 10 days old a dry mash should be given them in hoppers instead of the wheat bran. I have had excellent results with a baby-chick mash made of equal parts of cornmeal, wheat bran, wheat middlings and oatmeal. When chicks are 2 weeks old, 10 per cent of meat scraps should be added to the mash.

At this point, then, the chicks will be getting scratch grain morning, noon and night, mash at all times, and greens once or twice a day. Also water, milk, grit and charcoal. If you have plenty of milk, water is not necessary.

Growing Chicks. From the second to the sixth week continue to feed baby-chick scratch grain in the litter morning, noon, and night, increasing the amount as the chicks grow, but feeding only such an amount as they can

clean up at each feeding in about 15 minutes. Keep mash before them at all times. Give them an abundance of pure, fresh water or all the butter-milk or sour milk they will drink. Also keep baby-chick size grit and charcoal before them at all times and give them green feed once or twice a day.

When chicks are about 6 to 8 weeks old, whole wheat, cracked corn and hulled oats may be fed in place of the fine chick grains, or mixed with the chick grains. At this time they also begin to be able to eat the entire sprouted oat and to take care of a medium size grit and charcoal. The schedule and system of feeding remains the same as it is up to the sixth week, the amount of food being increased according to age. And this schedule is continued until the birds approach maturity at which time they may be fed the rations intended for laying pullets and hens or breeding males.

One very important feature of successful chick raising is to keep them growing every minute. You cannot neglect them and expect them to do their best. They must be fed regularly, the ration must be of the best quality and fed in sufficient quantity to produce results.

The very best results in getting growth, vigor, vitality and all-round development is obtained by mixing one and one-half pounds of Dr. Le Gear's Poultry Prescription to each 100 pounds of mash in all mash feeds given the youngsters after they are 10 weeks old. You, like thousands of others, will thank me for giving you this advice, I feel sure, as the small cost of adding the prescription comes back many, many times in profits. It will give you stronger and better breeders, and help keep your youngsters in good health, stop losses, and increases your profits.

Commercial Baby Chick Feeds. There are many splendid scratch, starting and growing commercial feeds made, and many breeders use them with success, especially those that have small flocks. You can use these feeds instead of the ones given above, but be sure to add Dr. LeGear's Poultry Prescription as described above after 10 weeks old, as it supplies those things needed for making bone, feathers, etc., in growing stock.

W. D. Holterman, Originator of Prize-Winning "Aristocrat" Barred Rocks, Uses and Recommends DR. LeGEAR'S POULTRY PRESCRIPTION.

For 25 years, W. D. Holterman has been one of the world's most successful producers of prize-winning Barred Rocks. His egg and stock customers have had thousands of winnings in thousands of shows, including the largest national and international exhibitions. He has developed some of the biggest producers ever entered in American egg-laying contests and ranks as one of the foremost poultry authorities and breeders. His plant is a model of perfection—an inspiring example of the profits and fortunes than can be made in scientific poultry raising and management.

Dr. L. D. LeGear Medicine Co.,
St. Louis, Mo.

Gentlemen:

I have used your poultry prescription and your poultry remedies and have always found them highly satisfactory. I feel that I can honestly recommend both your poultry prescription and your poultry remedies to poultry breeders everywhere.

If your poultry prescriptions were used more universally, there would be greater egg production, better fertility, and much of the mortality among flocks would be avoided, and thus the profits to breeders increased.

I believe every poultry raiser should keep on hand a supply of such high-class remedies as yours for emergencies as they arise, and use your poultry prescription regularly, as you recommend.

Very truly yours,

W. D. HOLTERMAN,
Fancier.

(If you wish to know more about Holterman's famous "Aristocrats," his address is Dept. L. G., Ft. Wayne, Ind.)

Feeding for Egg Production

The success of most farmers and poultrymen depends upon the number of eggs their hens can produce. In order that the birds shall lay well they must be given favorable environment, especially during the seasons of unfavorable conditions and consequent high prices of eggs. Our duty is to do all we can for our layers. We cannot expect good production unless we give them a fair chance.

The ability to produce a large number of eggs depends upon several factors. In the first place, the birds must be bred for egg production. They must have strong constitutional vigor and be hatched early enough to be able to mature properly before cold weather sets in. We then need to care for and feed the birds correctly in order to maintain health.

THE HEN IS AN EGG FACTORY.

It's a whole egg or none for the hen. Being an honest manufacturer she does not make half an egg. Her egg "factory" is run like a real plant. When the yolk is made, it is then passed into another department where it is surrounded by white, then into a third where it is encased by a layer of the purest form of carbonate of lime, forming the egg shell, after which it is ready to greet a hungry world.

The average hen lays about 72 eggs a year, mostly during warm weather. She should manufacture twice that number, state the institute's experts who, in experimenting with hundreds of laying hens, discovered surprising differences in the number of eggs produced by various poultry rations. If the hen's egg-making apparatus fails to work up to a standard of efficiency it is probably not the hen's fault, but rather that of the poultryman who unknowingly does not provide her with the food material the hen requires to keep all three egg-making departments working full time. When the hen is fed sound grains and an efficient mash containing egg-making nutrients that make for the greatest efficiency in her plant, she can't help but make eggs! Feed is the most important single factor in egg production. It is also the biggest item of cost. Profitable results cannot be secured with poor rations.

In addition to providing the best rations for egg production, the wise poultry raiser will see that fresh water, grit, oyster shell and charcoal are kept constantly before his birds. On the following pages you will find the feeding formulas used and recommended by the State Agricultural Experimental Stations, most of whom the United States Department of Agriculture is cooperating with. Practically all these stations agree the items named



Type of feeding battery used in commercial feeding establishments. The farmer or small poultry raiser can easily build similar fattening crates. If only a few birds are to be fattened, a single crate will answer the purpose. Where a greater number is to be fattened, a battery built tier on tier is very convenient. (Courtesy U. S. Dept. of Agriculture.)

above should be given in addition to the scratch feed and mashes recommended, and where possible milk in some form be given either whole, skimmed, butter milk—solid, semi-solid or powdered milk.

All laying hens or pullets should also have minerals and other items not usually found in feed mixtures to get maximum egg production and to keep the fowls in good condition, the cheapest and best way to supply these minerals, etc., is to add one pound of Dr. LeGear's Poultry Prescription to each 50 pounds of mash. At moulting time or when disease is present, more should be used. Some poultry men use as much as 2½ pounds for each 50 pounds of mash. I do not say this to sell prescription, I say it because I want to really help you and I know from tests on my own plant for many years and tests made by breeders of poultry all over the country, that you will get more eggs, better fertility, stronger chicks, and have by far less losses by death and sickness. Therefore, your birds so fed will be more profitable.

Its regular use in your mash will aid you in keeping your whole flock in strong healthy egg laying condition, and the small cost of adding this to your mash will be repaid many, many fold. Therefore, no matter what feeding ration you use or select from the following pages, I urge you to mix Dr. LeGear's Poultry Prescription in all mash feed.

Read What W. W. Kerlin Says

Mr. W. W. Kerlin, manager of the great Kerlin's Grand View Poultry Farms at Center Hall, Pa., who is recognized as one of the most successful breeders in America, on July 28th, 1926, writes as follows:

Dr. L. D. LeGear Medicine Company,
4161-4175 Beck Ave.,
St. Louis, Mo.

Gentlemen:

For the past fifteen years we have been each year convincing several thousand new customers that there is a vast difference in chicks and chickens. Since 1900 we have developed a SUPER-strain of Leghorns that have delighted more than 50,000 customers in all parts of the U. S. A., and twelve foreign countries.

But,—WE FAILED TO APPLY THIS SAME TRUTH to the field which your Poultry Prescription so thoroughly covers.

I am writing you today first to congratulate you on the real service you are rendering the poultry raisers of the country in the production of Dr. LeGear's Poultry Prescription and secondly to urge that you more extensively acquaint our poultry-raising people of the fact that yours is an aid to Nature—not a detriment. Let them know that Dr. LeGear's Prescription is a FOOD, not a "dope."

Our analysis of your Prescription, the increased egg production, the more rapid and even development of the young stock plus the maintenance of the general health of the fowls has made of us most enthusiastic "boosters" for your Prescription, and we want you to realize that we shall never neglect an opportunity to recommend your valuable product to our "Kerlin-Quality" Customers.

Wishing you an abundance of deserved success, we are

Very truly yours,

KERLIN'S GRAND VIEW POULTRY FARM.

W. W. Kerlin, Manager.

If you still have any doubt, make the following test yourself. Take two flocks or pens equal in age, number of fowls, housed under same conditions. Give one pen feed without Dr. LeGear's Poultry Prescription—the other pen give the same feeding, only add one pound Dr. LeGear's Poultry Prescription to each 50 lbs. of mash. Then keep a record of eggs laid by each flock during each year. Note sickness and death in each flock. Note difference in fertility of eggs set. Note difference in health, vigor, condition and feather of both flocks. If you will do this, you will realize why I urged you so strongly to feed Dr. LeGear's Poultry Prescription in all mash feed.

I am confident you will never be content to raise chickens again without putting the Prescription in all mash feed given growing and laying stock. The small extra cost does not amount to anything compared with increased egg production and profits—to say nothing of the satisfaction of keeping your

birds in the pink of condition, shortening the moult, getting better fertility, getting stronger and better chicks, more vigorous males and better breeding females, and less loss from disease and death.

So once more let me urge you to mix Dr. LeGear's Poultry Prescription in all your mash feeds, after chicks become 10 weeks old. If you take this advice and follow it, I am confident you will say it is one of the best things you ever did for your poultry and your success.

Dr. LeGear's Poultry Prescription can be had at thousands and thousands of dealers from one end of the United States to the other. Don't accept a substitute—there is only one Dr. LeGear's Poultry Prescription. If for any reason your dealer does not have it, he can get it for you. Send his name and address so we can see that you are supplied.

My Method of Feeding Layers

The subject of poultry feeds and poultry feeding is a very exhaustive although a very important one. Pages could be written on the subject, but space will not permit it in this book. I will endeavor to give briefly my method of feeding my poultry, which gives me excellent results, as my birds lay well, do well, and are always healthy and vigorous. I make it a point to buy only the very best of all kinds of feed. I consider cheap feed dear at any price.

Damaged feed will cause troubles of the digestive organs, impair the birds' general health and condition, and produce less eggs and fat. It is necessary to feed as much of a variety as possible, provided your poultry do not enjoy the freedom of large yards and fields. If poultry have the run of the farm they get a great variety of bugs, worms, green feed, seeds, grit, etc., that are not obtainable in small yards or during the winter months when poultry are housed or confined. Hens that are confined should be given grit, crushed oyster shells, granulated charcoal, green feed, a variety of whole as well as ground grains, and some form of meat or milk. Milk is a very valuable feed for laying hens, and should be fed daily if available at a reasonable price. Either sweet, sour or buttermilk is good as long as it is fresh.

I confine my birds to their houses in the winter time and all of their grain is fed in deep straw, which gives them exercise scratching for it. I feed equal parts of wheat, oats, and cracked corn for the morning and evening meal. If buckwheat, milo maize, or kaffir corn can be had it will make a good addition to the grain feed. I mix some sunflower seed to the whole grain during the molting season. During the winter months the amount of corn may be doubled in the grain ration.

I mix my own dry mash and make it about as follows: 100 pounds wheat bran; 100 pounds shorts, middlings or ship stuff; 100 pounds corn meal; 50 pounds ground oats; 100 pounds dry meat scraps; 5 pounds salt; and one pound Dr. LeGear's Poultry Prescription to each 50 pounds of mash. It is thoroughly mixed and some of it is kept before the birds in hoppers, at all times. They are fond of it and consume a good deal each day.

In the morning I feed a warm, wet mash (not too wet) in troughs, to which is mixed, each morning, one tablespoonful of Dr. LeGear's Poultry Prescription for each 20 hens. The mash above referred to may be made from table scraps, stale bread and milk, cooked oats or vegetables, to which may be added some wheat bran and corn meal, or some dry mash, composed of equal parts of wheat bran, wheat middlings, corn meal, gluten meal, ground oats and meat scraps. At noon I give sprouted oats and any green vegetables I may have.

Green feed of some kind should be fed daily. Dry mash may be kept before them in hoppers at all times. Milk, sweet or sour, or buttermilk is ex-

cellent for hens. A little fresh meat, cooked or raw, or green cut bone can be fed daily to advantage in winter.

A good commercial dry mash may be purchased from your dealer in poultry feeds, and many of these are very good and satisfactory and already prepared. To each 50 pounds of commercial mash add one pound of Dr. LeGear's Poultry Prescription, mixing thoroughly. Green feed is a very important part of a fowl's daily ration. I provide it in some form every day in the year. During the summer such green food as kale, rape, mustard, turnips, lettuce, cabbage, swiss chard, etc., can be grown in abundance for the birds, while in winter green food can be supplied in the form of sprouted oats, cabbage, mangels, turnips, etc.

Poultry feeding is such an important subject that I have devoted one whole volume (39 pages) to it in my Poultry Course volume. I urge you to read it carefully.

Ready Mixed Commercial Poultry Feeds

Today there are many splendid, properly balanced, ready-mixed poultry feeds on the market, and I am convinced the average poultry raiser will get better results and save money by using good, ready-mixed feeds where available than by attempting to mix their own feed.

By using a ready-mixed starting mash, ready-mixed chick scratch, and the ready-mixed growing mash, and the medium-sized scratch, and then the ready-mixed laying mash, and ready-mixed scratch feed of the reliable mixed poultry feeds, you will get excellent results. Even some of the very large poultry breeders have discontinued mixing their own poultry feeds and are using ready-mixed commercial feeds, and this after they have made tests for many months of results and costs.

Therefore, I have no hesitancy in saying to all poultry raisers that if you can get ready-mixed poultry mashes and scratch feeds in your locality, by all means use same, as it will undoubtedly save you time and money.

But do not fail to add 1 pound of Dr. LeGear's Poultry Prescription to each 50 pounds of laying mash. You will find by so doing it will increase your egg production, fertility and profits, and aid you in keeping your whole flock vigorous and healthy.

For growing chicks, after ten weeks old, add $\frac{3}{4}$ pound of Dr. LeGear's Poultry Prescription to each 50 pounds of commercial ready-mixed growing mash and you will get wonderful results. The adding of Dr. LeGear's Poultry Prescription to the growing mash will give you rapid growth, vigor and vitality, and wonderful all-around development, as well as keep the growing stock in splendid condition.

If you will try for one year the feeding of Dr. LeGear's Poultry Prescription with all your mashes as outlined in this book, I am confident you will never again raise chickens without using Dr. LeGear's Poultry Prescription in all mashes.

To those growing their own grains or having special advantages in procuring same, and in a position to mix their own feed economically, we give, on the following pages, the formulas recommended by the experimental stations of the various states, and we feel sure these formulas will aid you in making a well-balanced ration for your poultry.

Mash and Scratch Feeds

Recommended and used by the different State Experimental Stations and those used by the great egg-laying contests.

You will notice these feeding formulas do not include oyster shell, grit, or charcoal. All stations agree all of these should be where fowls can get them at all times. Fresh water must be accessible at all times, also some green food must be given. Most stations recommend some form of milk be given to layers—either skimmed milk or butter milk, or dried, semi-solid or powdered butter milk.

You will notice also I do not put in each mash formula Dr. LeGear's Poultry Prescription—yet to each fifty pounds of mash one pound of Dr. LeGear's Poultry Prescription should be added and thoroughly mixed, if you want maximum egg production and results.

These feeding formulas should be very valuable to poultry raisers because they come from authorities that are reliable and have been proven successful. They give the grains and meals that are most easily and cheaply obtained in the state they are recommended for. They show clearly many combinations can be made and used successfully in feeding poultry.

Here are the Feeding Formulas. Under each state is given the name of the experimental station giving the formula.

ALABAMA		MASH*	SCRATCH
Alabama Polytechnic Institute, State Board of Agriculture and United States Department* of Agriculture co-operating.	200 lbs. corn meal.	100 lbs. corn.	
	100 lbs. ground oats.	100 lbs. wheat.	
	100 lbs. meat scraps.	100 lbs. oats.	
	100 lbs. shorts.		
	5 lbs. fine salt.		
	In summer time 200 lbs. middlings and only 100 lbs. corn meal.		
ARKANSAS		MASH*	SCRATCH
Extension Service, College of Agriculture, University of Arkansas.	100 lbs. wheat bran.	200 lbs. whole or cracked corn.	
	100 lbs. wheat shorts.	100 lbs. wheat.	
	100 lbs. corn meal.		
	100 lbs. ground oats.		
	100 lbs. beef scraps.		
	1 lb. fine salt.		
ARIZONA		MASH*	SCRATCH
University of Arizona, Tucson, College of Agriculture, Agricultural Extension Service.	100 lbs. bran.	50 lbs. wheat.	
	100 lbs. shorts.	100 lbs. yellow corn.	
	100 lbs. ground barley.	25 lbs. barley.	
	100 lbs. yellow corn meal.	25 lbs. milo maize or Hegari.	
	100 lbs. meat scraps.		
	25 lbs. bone meal.		
	25 lbs. charcoal.		
	15 lbs. fine ground oyster shell.		
	5 lbs. fine ground salt.		
CALIFORNIA			
(See Egg Laying Contest Page.)			
COLORADO		MASH*	SCRATCH
Colorado Agricultural College Extension Service.	100 lbs. corn meal.	200 lbs. cracked corn.	
	100 lbs. ground oats.	200 lbs. wheat.	
	100 lbs. wheat bran.	100 lbs. oats (heavy) or barley.	
	100 lbs. wheat shorts.		
	100 lbs. meat scraps.		

**Important! Dr. LeGear's Poultry Prescription should be added to all mash feeds, mixing one pound to 50 pounds of the mash. During moulting time and when disease is present more should be used. At such times some poultrymen mix one pound of Dr. LeGear's Poultry Prescription to each 20 pounds of the mash.*

CONNECTICUT
MASH*
SCRATCH

Extension Service Connecticut Agricultural College, Storrs Station.

200 lbs. corn meal.
100 lbs. bran.
100 lbs. middlings.
100 lbs. oatmeal (or heavy oats ground).
50 lbs. meat scraps.
25 lbs. powdered milk.
5 lbs. fine salt.

200 lbs. corn, whole or cracked.
100 lbs. wheat.
100 lbs. oats.

In case skimmed milk is available, powdered buttermilk need not be used. In case the beef scrap used is low in bone, 25 lbs. of bone meal should be added to the mash formula.

DIST. OF COLUMBIA
LAYING MASH*
GROWING CHICKS

United States Department of Agriculture, Bureau of Animal Industry.

150 parts corn meal.
100 parts oatmeal.
100 parts meat scraps.
50 parts bran.
50 parts middlings.
28 parts dried milk.
13 parts bone meal.
5 parts limestone.
4 parts salt.

(Mash after 14 days)
40 parts corn meal.
40 parts rolled oats.
20 parts bran.
20 parts middlings.
20 parts beef scraps.
10 parts dried buttermilk.
5 parts bone meal.
4 parts oyster shells.
1 part salt.

FLORIDA
LAYING MASH*
SCRATCH 'FEED

College of Agriculture, University of Florida.

Equal parts—
Wheat bran.
Middlings.
Corn meal.
Oat flour.
55% meat scraps.

Equal parts—
Cracked corn.
Wheat.
Oats.

GEORGIA
MASH*
SCRATCH

Georgia State College of Agriculture.

10 lbs. wheat bran.
10 lbs. corn meal.
10 lbs. ground oats.
10 lbs. wheat shorts.
10 lbs. meat scraps.
10 lbs. beef scraps.
 $\frac{1}{2}$ lb. table salt.

10 lbs. wheat.
10 lbs. corn.
5 lbs. oats.

Where good ground oats are not available, wheat middlings or red dog may be substituted.

IDAHO
DRY MASH*
SCRATCH

University of Idaho Agriculture Experimental Station.

Equal parts—
Bran, shorts, cornmeal and ground oats. Pea meal may be added to extend of 20%. In addition, 5 oz. salt and 2 lbs. charcoal to each 100 lbs.

2 parts wheat.
1 part whole oats.
1 part corn or barley.

Unlimited sour skimmilk. When this is not available, suggest the use of semi-solid buttermilk in a solution of 1 to 4 or 5.

ILLINOIS
DRY MASH*
SCRATCH

University of Illinois Agricultural College and Experimental Station.

1 part wheat bran.
1 part flour middlings.
1 part ground corn or cornmeal.
1 part ground heavy oats.
1 part meat scraps.
All parts are by weight.

5 parts corn.
3 parts wheat.
2 parts heavy oats.

**Important! Dr. LeGear's Poultry Prescription should be added to all mash feeds, mixing one pound to 50 pounds of the mash. During moulting time and when disease is present more should be used. At such times some poultrymen mix one pound of Dr. LeGear's Poultry Prescription to each 20 pounds of the mash.*

INDIANA

Purdue University Agri-
cultural Experiment Station.

5 lbs. bran.
5 lbs. shorts.
3.5 lbs. meat scraps.

MASH***SCRATCH**

10 lbs. corn.
10 lbs. wheat.
5 lbs. oats.

IOWA

Iowa State College of Ag-
riculture and Mechanical
Arts.

LAYING MASH*

Any of the following mash
rations will give good re-
sults. At present with corn
at 60 cents and oats at 30
cents, probably as cheap a
ration and economical a ra-
tion as any, would be—

200 lbs. ground oats.
100 lbs. ground corn.
60 lbs. meat and bonemeal.

When mill feeds are in
line with grain prices, the
following will give excellent
results—

100 lbs. ground corn.
100 lbs. ground oats.
100 lbs. bran.
100 lbs. middlings.
80 lbs. meat and bonemeal.

LAYING MASH*

At times the past few
years, the birds have
taken kindly and returned
good results on this
mash:

100 lbs. ground corn.
200 lbs. ground oats.
100 lbs. middlings.
100 lbs. gluten feed.
100 lbs. meat and bone
meal.

In sections of the state
where wheat is grown, a
favorite mash is—

200 lbs. ground oats.
100 lbs. ground corn.
100 lbs. wheat.
80 lbs. tannage.
(No definite scratch
mixture is given.)

KANSAS

Agricultural Experiment
Station Kansas State Agri-
cultural College Department
of Poultry Husbandry.

DRY MASH*

For Eastern Kans.

40 lbs. corn.
40 lbs. oats.
20 lbs. tannage.

For Western Kans.

40 lbs. corn (ground).
20 lbs. bran.
20 lbs. shorts.
20 lbs. tannage.

SCRATCH

For Eastern Kans.

75 lbs. corn cracked.
25 lbs. wheat.

For Western Kans.

75 lbs. milo or kafir.
25 lbs. wheat.

KENTUCKY

University of Kentucky
College of Agricultural Ex-
tension Division.

DRY MASH*

300 lbs. shipstuff.†
100 lbs. ground corn or corn-
meal.
100 lbs. tannage or meat
scraps.

†Mixed wheat feed or mill
run of bran and shorts.

SCRATCH

50 lbs. corn shelled or
cracked.
25 lbs. wheat.
25 lbs. heavy oats.

LOUISIANA

University of Louisiana.

**GROWING AND LAYING
MASH***

5 lbs. oatmeal.
10 lbs. wheat shorts.
10 lbs. wheat bran.
12 lbs. cornmeal or rice
polish.
8 lbs. meat scrap.
2½ lbs. bone meal.
1½ lbs. fine oyster shell.
½ lb. fine charcoal.
½ lb. table salt.

SCRATCH

No definite grains
given.

**Important! Dr. LeGear's Poultry Prescription should be added to all mash feeds, mixing one pound to 50 pounds of the mash. During moulting time and when disease is present more should be used. At such times some poultrymen mix one pound of Dr. LeGear's Poultry Prescription to each 20 pounds of the mash.*

MAINE

University of Maine Col-
lege of Agriculture.

LAYING MASH*

200 lbs. bran.
100 lbs. cornmeal.
100 lbs. middlings.
100 lbs. gluten feed.
100 lbs. meat scraps.
50 lbs. linseed oil meal.

SCRATCH GRAIN

200 lbs. cracked corn.
100 lbs. wheat.
100 lbs. oats.

We advise feeding liquid milk with this mash, but in case liquid milk is not available, 25 lbs. of dried butter-milk is added to it.

MARYLAND

State Agricultural College.

MASH*

2 parts cornmeal.
1 part bran.
1 part middlings.
1 part beef scrap.

SCRATCH

Equal parts —
Corn.
Wheat
Oats.

MASSACHUSETTS

Massachusetts Agricul-
tural College — Department
Poultry Husbandry — Am-
hearst.

LAYING MASH*

200 lbs. yellow cornmeal.
100 lbs. bran.
100 lbs. middlings.
100 lbs. oat products.
50 lbs. meat scraps.
25 lbs. dried milk.

SCRATCH GRAIN

Morning.
100 lbs. cracked corn.
100 lbs. oats.
100 lbs. wheat or barley.
Afternoon all whole
corn birds will eat or
double cracked corn—in
morning mixture.

MICHIGAN

Michigan State College
Poultry Department.

EGG MASH*

20% cornmeal.
20% ground oats.
20% bran.
20% middlings.
20% meat scraps.

SCRATCH FEED

1 part wheat.
1 part corn.

MINNESOTA

University of Minnesota
Department of Agriculture.

EGG OR DRY MASH*

1 bu. shelled corn.
2 bu. oats.
1 bu. screenings finely
ground.

SCRATCH FEED

2 parts cracked corn.
1 part wheat.
1 part oats.

Equal parts by weight of cornmeal, bran, shorts, and ground oats make an excellent mash from mill feeds.

MISSISSIPPI

Mississippi Agricultural
and Mechanical College Ex-
tension Department.

MASH*

20 lbs. cornmeal.
20 lbs. wheat bran.
15 lbs. wheat shorts.
20 lbs. ground oats.
10 lbs. cotton seed meal.
15 lbs. beef scraps.
(Clabber or skimmed milk
—all they will eat.)

SCRATCH

5 parts corn.
4 parts oats.
1 part sunflower seed.
—or—
4 parts corn chips.
3 parts wheat.
1 part hulled oats.
1 part sunflower seed.

MISSOURI

University of Missouri Col-
lege of Agriculture, Dept.
of Poultry Husbandry.

LAYING MASH*

500 lbs. bran.
500 bs. shorts.
480 lbs. cornmeal (yellow).
400 lbs. meat scrap or tank-
age.
100 lbs. alfalfa meal.
20 lbs. salt.

SCRATCH GRAIN

1200 lbs. cracked corn
(yellow).
200 lbs. clipped oats.
200 lbs. kafir.
400 lbs. wheat.

**Important! Dr. LeGear's Poultry Prescription should be added to all mash feeds, mixing one pound to 50 pounds of the mash. During moulting time and when disease is present more should be used. At such times some poultrymen mix one pound of Dr. LeGear's Poultry Prescription to each 20 pounds of the mash.*

MONTANA .

Montana State College of
Agricultural and Mechanical
Arts.

MASH*

100 lbs. shorts or bran and
middlings mixed.
100 lbs. gr. barley.
100 lbs. gr. oats.
100 lbs. cornmeal.
100 lbs. meat scrap or milk,
four gallons to 100
birds per day.

GRAIN

Equal parts by weight—
Wheat.
Corn.
Oats.

NEBRASKA

University of Nebraska
Agricultural College.

DRY MASH*

150 lbs. corn meal.
150 lbs. shorts.
100 lbs. bran.
100 lbs. meat meal or tank-
age.
—or—
200 lbs. cornmeal (yellow).
100 lbs. ground wheat.
100 lbs. ground barley.
100 lbs. meat meal or tank-
age.

SCRATCH FEED

Cracked yellow corn.
—or—
500 lbs. cracked yellow
corn.
100 lbs. wheat.
100 lbs. heavy oats.

NEW HAMPSHIRE

University of New Hamp-
shire Extension Service.

MASH*

100 lbs. bran.
100 lbs. middlings.
200 lbs. yellow cornmeal or
yellow Hominy.
50 lbs. beef scraps.
100 lbs. rolled oats or re-
ground rolled oats.
25 lbs. bone meal.

SCRATCH

200 lbs. yellow cracked
corn.
100 lbs. wheat.
100 lbs. oats.

NEW JERSEY

State of New Jersey Agri-
cultural Experimental Sta-
tion.

LAYING MASH*

Equal parts by weight—
Bran.
Cornmeal.
Flour middlings.
Heavy ground oats.
Meat scraps.

SCRATCH FEED

Equal parts by weight—
Cracked corn.
Wheat.
Heavy oats.

NEW MEXICO

Agriculture Experimental
Station New Mexico Agricul-
ture and Mechanical Arts.

MASH*

100 lbs. cornmeal.
100 lbs. bran.
100 lbs. shorts.
100 lbs. ground oats or
ground barley.
75 lbs. meat scrap.

SCRATCH

200 lbs. wheat.
100 lbs. milo.
100 lbs. corn.
100 lbs. barley.

NEW YORK

New York State College of
Agriculture at Cornell Uni-
versity.

LAYING MASH*

100 lbs. wheat bran.
100 lbs. wheat middlings.
100 lbs. cornmeal.
100 lbs. ground oats or
ground barley.
100 lbs. meat scraps.
3 lbs. salt.

SCRATCH GRAIN

500 lbs. cracked corn.
200 lbs. barley.
200 lbs. wheat.
100 lbs. heavy oats.

NORTH CAROLINA

State College of Agricul-
ture and Engineering.

MASH*

4 lbs. bone meal (or pul-
verized limestone).
1 lb. table salt.
35 lbs. cornmeal.
20 lbs. wheat middlings.
20 lbs. pulverized oats.
20 lbs. fish meal (or meat
meal).

SCRATCH

50 lbs. corn (preferably
yellow).
30 lbs. oats (heavy).
20 lbs. wheat.

**Important! Dr. LeGear's Poultry Prescription should be added to all mash feeds, mixing one pound to 50 pounds of the mash. During moulting time and when disease is present more should be used. At such times some poultrymen mix one pound of Dr. LeGear's Poultry Prescription to each 20 pounds of the mash.*

NORTH DAKOTA

North Dakota Agricultural
College Poultry Department.

MASH*	
100 lbs.	bran.
100 lbs.	middlings.
100 lbs.	fine ground corn.
100 lbs.	ground oats.
100 lbs.	meat scrap.
3 lbs.	salt.

***SCRATCH FEED**

10 lbs.	cracked corn.
10 lbs.	wheat.
5 lbs.	oats or barley.

OHIO

Agricultural Extension
Service of the Ohio State
University.

MASH*	
100 lbs.	cornmeal.
100 lbs.	ground oats.
100 lbs.	wheat middlings.
100 lbs.	wheat bran.
100 lbs.	meat scraps.

SCRATCH

200 lbs.	shelled or cracked corn.
100 lbs.	wheat or heavy oats.

If it is impossible to secure the oats for the mash, substitute middlings or cornmeal. More wheat than given in the above scratch may be profitably fed when the price of wheat is near the price of corn.

OREGON

Oregon Agricultural Col-
lege.

MASH*	
500 lbs.	mill-run.
500 lbs.	ground wheat.
400 lbs.	ground corn.
200 lbs.	ground oats.
100 lbs.	ground barley.
200 lbs.	meat meal.
100 lbs.	fish meal.
50 lbs.	oil meal O. P.
50 lbs.	bone meal.

SCRATCH FEED

Scratch grain varies with prices, availability, weather conditions. Any one of the following formulas may be used: equal parts, by weight, of wheat, corn and oats; two parts wheat and one each of corn and oats; two parts corn and one each of wheat and oats; or two parts wheat and one part of either corn or oats.

OKLAHOMA

Oklahoma Agricultural and
Mechanical College Experi-
mental Station.

LAYING MASH*	
200 lbs.	bran.
100 lbs.	meat scraps.
100 lbs.	fine ground yellow corn.
100 lbs.	pulverized barley.
100 lbs.	shorts.
50 lbs.	alfalfa meal.
40 lbs.	cottonseed meal.
20 lbs.	dried buttermilk.
6 lbs.	salt.

SCRATCH FEED

Wheat.
Cracked yellow corn.
Whole oats.

The whole oats are fed about 10 o'clock in the morning. The wheat and corn are mixed in proportions varying with the season and fed so that the hens will have about 2½ hours of scratch time before going on the roosts.

PENNSYLVANIA

The Pennsylvania State
College—School of Agricul-
ture and Experiment Sta-
tion.

LAYING MASH*	
200 lbs.	cornmeal.
100 lbs.	standard middlings.
100 lbs.	wheat bran.
50 lbs.	ground oats.
75 lbs.	alfalfa leaf meal.
100 lbs.	fish meal.
40 lbs.	dried buttermilk.
25 lbs.	bone meal.
5 lbs.	salt.

SCRATCH FEED

Leghorns—
2 parts corn.
1 part wheat.
Heavy Breeds—
2 parts corn.
2 parts wheat.
1 part oats.

SOUTH CAROLINA

Clemson Agricultural Col-
lege of South Carolina and
United States Dept. of Ag-
riculture co-operating.

LAYING MASH*	
100 lbs.	wheat bran.
100 lbs.	wheat middling.
100 lbs.	cornmeal.
100 lbs.	finely ground oats.
100 lbs.	meat scrap.

SCRATCH FEED

100 lbs. cracked corn.
100 lbs. oats.
100 lbs. wheat.

**Important! Dr. LeGear's Poultry Prescription should be added to all mash feeds, mixing one pound to 50 pounds of the mash. During moulting time and when disease is present more should be used. At such times some poultrymen mix one pound of Dr. LeGear's Poultry Prescription to each 20 pounds of the mash.*

SOUTH DAKOTA

Extension Service South
Dakota State College.

MASH*

100 lbs. bran.
100 lbs. middlings.
200 lbs. cornmeal.
100 lbs. tankage — 60% pro-
tein.
5 lbs. salt.

SCRATCH FEED

100 lbs. cracked corn.
100 lbs. whole corn.
100 lbs. barley.
100 lbs. oats.

TENNESSEE

University of Tennessee,
College of Agriculture.
United States Department
of Agriculture. State De-
partment of Agriculture.
State Board of Education
co-operating.

MASH*

150 lbs. wheat bran.
150 lbs. shorts.
100 lbs. yellow cornmeal.
100 lbs. meat scraps, or high
grade 60% tankage.
5 lbs. salt.

SCRATCH GRAIN

A scratch grain recom-
mended is made up of
yellow corn largely,
mixed with home-raised
grain such as wheat, bar-
ley, and heavy oats, de-
pending on availability
and price.

TEXAS

Agricultural and Mechan-
ical College of Texas.

MASH*

100 lbs. cornmeal or ground
milo.
100 lbs. wheat shorts.
100 lbs. bran.
100 lbs. ground oats.
100 lbs. meat scrap (50%
protein).
—or—
200 lbs. ground milo.
100 lbs. wheat shorts.
100 lbs. wheat bran.
100 lbs. meat scrap.

GRAIN

2 lbs. cracked corn.
1 lb. wheat.
1 lb. oats.
—or—
2 lbs. milo or kafir.
1 lb. wheat.

UTAH

Utah Agricultural Experi-
mental Station.

LAYING MASH*

25 lbs. bran.
12 lbs. shorts.
20 lbs. corn (ground fine).
12 lbs. barley (ground
fine).
18 lbs. meat meal.
2½ lbs. charcoal.
¾ lb. salt.
1½ lbs. bone meal.
1½ lbs. calcite (ground fine).

SCRATCH FEED

50 lbs. wheat.
50 lbs. corn.
25 lbs. oats.

VERMONT

College of Agriculture
University of Vermont.

MASH*

200 lbs. yellow cornmeal.
100 lbs. bran.
100 lbs. middlings.
100 lbs. oat products.
50 lbs. meat scraps.
25 lbs. dried milk.

SCRATCH

100 lbs. cracked corn.
100 lbs. oats.
100 lbs. wheat or barley.

VIRGINIA

Virginia Agricultural and
Mechanical College and
Polytechnic Institute.

MASH*

100 lbs. bran.
200 lbs. red dog.
200 lbs. yellow cornmeal.
200 lbs. flour.
100 lbs. gluten.
200 lbs. beef scraps.
30 lbs. bone meal.
50 lbs. gypsum.
25 lbs. charcoal.
6 lbs. salt.

SCRATCH FEED

2 parts cracked corn.
1 part wheat; in morning.
2 parts sprouted oats.
1 part dry mash.
3 lbs. buttermilk; at
noon.

**Important! Dr. LeGear's Poultry Prescription should be added to all mash feeds, mixing one pound to 50 pounds of the mash. During moulting time and when disease is present more should be used. At such times some poultrymen mix one pound of Dr. LeGear's Poultry Prescription to each 20 pounds of the mash.*

WASHINGTON		EGG MASH*	SCRATCH
The State College of Washington Experimental Station.	30%	bran.	250 lbs. wheat.
	20%	mill-run.	100 lbs. cracked corn.
	12½%	cornmeal.	In cold weather:
	5%	fish meal.	275 lbs. wheat.
	5%	meat scraps and meal.	200 lbs. cracked corn.
	5%	English process soy bean meal.	
	22½%	low grade flour.	

WEST VIRGINIA		LAYING MASH*	GROWING MASH
College of Agriculture West Virginia University.	400 lbs.	standard wheat bran.	500 lbs. fine ground oats.
	400 lbs.	flour middlings (wheat).	600 lbs. cornmeal.
	400 lbs.	yellow cornmeal.	640 lbs. standard wheat middlings.
	400 lbs.	ground oats.	100 lbs. meat scrap 60%.
	360 lbs.	beef scrap.	50 lbs. bone meal.
	20 lbs.	calcium carbonate.	100 lbs. dried buttermilk.
	10 lbs.	salt.	10 lbs. salt.
	10 lbs.	bone meal.	

WISCONSIN		MASH*	SCRATCH FEED
The University of Wisconsin Extension Service College of Agriculture.	100 lbs.	ground corn.	200 lbs. yellow corn.
	100 lbs.	ground oats.	200 lbs. wheat.
	100 lbs.	wheat bran.	100 lbs. heavy oats.
	100 lbs.	wheat middlings.	
	100 lbs.	meat scrap.†	
	5 lbs.	common salt.	

†Or substitute a good grade of tankage.

Egg Laying Contest Feeding Formulas

CALIFORNIA		MASH*	GRAIN
Southern California Farm Bureau Egg Laying Contest.	30%	wheat bran.	40% cracked Indian corn.
	20%	red dog.	30% whole wheat.
	25%	cornmeal.	15% barley.
	15%	meat scrap.	15% oats.
	5%	O. P. Linseed meal.	
	5%	Soy bean meal.	
	2½%	fine charcoal, additional.	
	½%	fine salt.	

CALIFORNIA (Sonoma County)		MASH*	GRAIN
Bureau International Egg Laying Contest, Pasadena, Calif.	180 lbs.	wheat bran.	100 lbs. ground yellow Indian corn.
	180 lbs.	ground yellow corn.	100 lbs. whole wheat.
	180 lbs.	std. wheat middlings.	
	50 lbs.	ground oats (heavy).	
	25 lbs.	fish meal (60%) P.	
	50 lbs.	beef scrap (50%) P.	
	10 lbs.	bone meal.	
	15 lbs.	charcoal No. 6.	
	10 lbs.	oyster shell flour.	
	3 lbs.	salt.	

ILLINOIS		
Egg Laying Contest Department of Agriculture, Division of Poultry Husbandry, State of Illinois.	A ready-mixed commercial scratch feed and a ready-mixed commercial laying mash is used.	

**Important! Dr. LeGear's Poultry Prescription should be added to all mash feeds, mixing one pound to 50 pounds of the mash. During moulting time and when disease is present more should be used. At such times some poultrymen mix one pound of Dr. LeGear's Poultry Prescription to each 20 pounds of the mash.*

MARYLAND

Maryland State Egg Laying Competitive and Performance tests.

MASH*
 100 lbs. wheat bran.
 100 lbs. wheat flour middlings.
 100 lbs. finely ground heavy oats.
 100 lbs. yellow cornmeal.
 100 lbs. meat and bone meal (50-55% protein).
 2½ lbs. salt (free from lumps).

SCRATCH

Equal parts—
 Whole yellow corn.
 Wheat.

MISSOURI

National Egg Laying Contest, Mountain Grove, Mo.

MASH*
 25 lbs. bran.
 25 lbs. shorts.
 30 lbs. cornmeal.
 10 lbs. ground oats.
 10 lbs. alfalfa meal.
 15 lbs. meat scraps.
 5 lbs. rolled oats.

SCRATCH FEED

50 lbs. cracked corn.
 50 lbs. wheat.

NEW JERSEY

Laying Contest State of New Jersey Agricultural Experiment Station.

MASH*
 1 part bran.
 1 part middlings.
 1 part cornmeal.
 1 part ground oats.
 1 part meat scraps.

SCRATCH

Equal parts—
 Cracked corn.
 Wheat.

NEW YORK

State Institute of Applied Agriculture on Long Island, Farmingdale Egg Laying Contest.

DRY MASH*
 100 lbs. wheat bran.
 100 lbs. cornmeal.
 100 lbs. red dog flour.
 100 lbs. diamond gluten meal.
 100 lbs. hulled ground oats (reground rolled oats may be used).
 50 lbs. alfalfa leaf meal.
 25 to 30 lbs. edible bone meal (more during high production).
 15 lbs. granulated charcoal.
 50 lbs. meat scrap (55% protein).
 3 lbs. powdered sulphur.
 3 lbs. salt.

SCRATCH GRAIN

200 lbs. cracked corn (may be cut to 100 in summer if wheat is not too high).
 100 lbs. white wheat.

PENNSYLVANIA

Egg Laying Contest operated by State Board of Agriculture and the Public Ledger—North American.

DRY MASH*
 200 lbs. bran.
 100 lbs. cornmeal.
 100 lbs. ground oats.
 100 lbs. gluten.
 40 lbs. beef scrap.
 40 lbs. fish scrap.
 35 lbs. powdered milk.

DRY GRAINS

60 lbs. cracked corn.
 40 lbs. wheat.
 40 lbs. heavy white oats.
 20 lbs. barley.
 10 lbs. kafir corn.
 10 lbs. buckwheat.
 10 lbs. coarse beef scraps.

**Important! Dr. LeGear's Poultry Prescription should be added to all mash feeds, mixing one pound to 50 pounds of the mash. During moulting time and when disease is present more should be used. At such times some poultrymen mix one pound of Dr. LeGear's Poultry Prescription to each 20 pounds of the mash.*

Diseases and Treatment of Poultry

There are numerous diseases to which poultry are subject, and the most common causes of diseases are improper feeds and methods of feeding, unsanitary conditions, exposure to dampness and drafts, impure drinking water, etc. Only sound feed of all kinds should be fed to poultry. Mouldy, musty or damaged feed of any kind will derange the digestive organs, cause disease and often death. Impure drinking water will often cause the same trouble. Unsanitary surroundings caused by neglect, filth, etc., frequently cause diseases of various kinds. Dampness and drafts are most common causes of colds, roup, rheumatism, etc. Lice are also an important factor in the production of poultry diseases. In the treatment of a good many of the diseases you will find that I have recommended Dr. LeGear's Poultry Remedies.

These remedies are my own private formulas that I have discovered and experimented with and found to give the very best of satisfaction in all cases that I have prescribed them. They are carefully compounded from pure drugs, chemicals and materials best suited to cure or prevent the various diseases. They are put up in large packages at small prices and are not only far superior to home-made remedies but also much cheaper.

There's nothing will rob you of your poultry profits quicker than diseases. You'll find time spent in reading about the causes, symptoms and treatment of poultry diseases a mighty good investment. In Dr. LeGear's Poultry Course Volume II you will find many valuable aids that space here prevents giving—and it will pay you to read carefully this volume.

Poultry Lice and Mites.—There are a great many kinds and varieties of parasites that infest poultry, but a general description as a whole will suffice here, as space will not permit me to write fully upon each one. Some of these insects remain on the bird's body at all times, while others hide in the roosts and houses during the daytime, and come out at night to attack the birds. These parasites may become so numerous as to suck the life out of the birds, or torment them very much.

Treatment.—All loose material, such as nest boxes, barrels, roosts, boards, nest material, and all dirt of every description should be removed and the floors thoroughly cleaned. Then, by the use of a sprayer, mop, sprinkling can, or an old broom, apply solution made by mixing five tablespoonfuls of Dr. LeGear's Dip and Disinfectant with one gallon of water, to all the inner walls, floors, dropping boards, etc., of the house, and more especially to cracks, crevices, and nest boxes, and other hiding places of vermin. Paint the roosts with Dr. LeGear's Dip and Disinfectant full strength. If the fowls are badly infested with lice, dust them thoroughly with Dr. LeGear's Lice Powder.

See that the Lice Powder is thoroughly applied into the feathers, under the wings and about the vent. Be thorough with your work and you will be successful. Provide dust bath, as explained on another page.

Fowls can be treated for lice by dipping them into a solution of one part of Dr. LeGear's Dip and Disinfectant mixed with 80 parts of warm water. If you dip them be sure and keep them in the water long enough to get all of the feathers thoroughly wet. Repeat the treatment in ten or twelve days.

Lice on Baby Chicks.—Lice are a great menace to baby chicks, especially those hatched by hens. Thousands upon thousands of chicks are killed each year by lice. As soon as the chicks are hatched the lice leave the mother hen, if the hen has lice, and infest the baby chicks. Lice on baby chicks are sometimes quite hard to see. They are seen more easily by slightly dampening the down on the chick's head or under the throat, which exposes the lice to view.

Lice will be found on the chick's head, throat, under the wings, etc. They puncture the skin and suck the blood and in a few days cause their death.

Chicks that are infested with lice will get dumpish, stand around asleep with their wings drooped, grow light in weight and die. If your chicks are not doing well, it is well to look for lice at once.

Incubator chicks are not exempt from the lice unless kept entirely away from older birds, or where fowls have recently been kept.

Treatment.—Setting hens should be dusted well with Dr. LeGear's Lice Powder, when first set, and then dusted well again about three days before hatching, so as to kill all lice on them and save the chicks from being infested. The hens should also be dusted about every week while they are brooding chicks. All chicks should be examined often for lice and if lice are found they should be doctored at once.

When lice are found on baby chicks get some of Dr. LeGear's Head Lice Remedy and apply it to the chick's head, under the throat and a little under the wings if lice are found there. If the chickens are very young use the remedy sparingly, as little chicks are very delicate and cannot stand much medicine on their bodies.

Dr. LeGear's Fly and Insect Powder is an excellent remedy for killing lice on baby chicks and it is perfectly safe to use on them. It can be dusted freely into all the down over their bodies. Do not use Dr. LeGear's Lice Powder on your baby chicks until after they become feathered. Keep your brooders and coops as clean as possible and disinfect them every week with Dr. LeGear's Dip and Disinfectant and Lice Powder as a prevention against lice and the germs of disease.

Lice and mites cause egg production to decrease, and often are the direct cause of the death of the birds. A very complete article on how to rid your poultry of these tiny pests is given in Volume 12 of Dr. LeGear's Poultry Course.

Gapes.—Gapes is a parasitic disease of poultry, caused by the presence in the windpipe of a worm called the *syngamus trachealis*. It is one of the most common and most troublesome diseases of young chickens and young turkeys, but older poultry, as a rule, do not suffer from it.

Symptoms.—The disease is observed most frequently in young chickens from one to four weeks old. The sick chicks are seen to be somewhat dull in appearance, extend the head frequently, and widely open the mouth—that is, they gape.

Treatment.—Separate the sick from the well chicks, and burn all those that die. Thoroughly clean up and disinfect the poultry-house, and premises where the sick chicks have been with Dr. LeGear's Dip and Disinfectant. Give all your poultry Dr. LeGear's Poultry Prescription in damp feed twice a day to make them strong and healthy and help to ward off disease. Mix five drops of turpentine with one-half teaspoonful of castor oil and give to each affected chick and repeat in 12 hours.

Scaly Legs.—This is a diseased or scaly condition of the legs of poultry, caused by a small parasite that burrows under the scales of the legs and causes the trouble. It is a catching disease, as the parasites spread from one bird to another, and it should be thoroughly treated and stamped out as soon as discovered. The disease is shown by irritation, swelling and a scabby condition of the shanks, feet and toes.

Treatment.—Paint the roosts once each month with a strong solution of Dr. LeGear's Dip and Disinfectant. Dip the feet and legs of the affected fowls in pure coal oil (kerosene oil) and repeat the treatment in seven days. Do this in the daytime so the treated fowls will not sit down and get some of the oil in the feathers. Then in four or five days apply a good application of lard to all of the affected parts. In a few days the diseased scales and scabs will fall off and leave the feet and legs in a healthy condition. Scaly Legs is a sign of carelessness and neglect. It is easily prevented and poultry should not have the disease. In my several years raising poultry, I have never had a case of Scaly Legs on my poultry plant. I keep my houses clean and spray them, roosts and all, frequently with a strong solution of Dr. LeGear's Dip and Disinfectant.

Coccidiosis.—Coccidiosis is a disease of the digestive system, which is particularly severe on young fowls if closely confined. Chicks affected at the age of two weeks to three months show little resistance to it. Adult fowls have a greater resistance. It can be more or less controlled through care, sanitation and proper care of the soil.

Causes.—The cause is a tiny internal parasite called coccidium which infests improperly managed soil. Polluted soil is therefore a contributing cause. Once introduced, the contagion spreads rapidly, being spread by the contamination of the food, water, etc., through the infected droppings.

Symptoms.—Chicks will lose their appetite and weight, they will be dull, droopy and stunted, they will usually have diarrhoea and the droppings will often be tinged with blood. Sometimes they run to the other extreme and have constipation.

A post-mortem will reveal lesions in the part of the small intestines nearest the gizzard and also one or both of the caeca or blind pouches, which will be filled with a bloody, semi-solid mass and sometimes with a cheese-like substance. The liver and lungs may also be covered with yellowish spots and nodules.

Treatment.—The minute parasite (*Cocidia*) cannot live in acid, consequently plenty of buttermilk as stated above should be fed to all chicks that have this disease, or that are exposed to it. Feed very little grain feed; that is, feed them almost no grain or mash for a few days; but feed plenty of buttermilk, which is a food and will help to sustain life.

Buttermilk should constitute a part of the daily diet of baby chicks. Fresh buttermilk is best, but if not obtainable, semi-solid or dried buttermilk is very beneficial to the digestive organs. Fresh buttermilk contains about one-half of one per cent lactic acid, and is valuable as a preventive and cure for Coccidiosis.

Wonderful results have been had in many cases by mixing from 20 per cent to 40 per cent dried powdered milk with the mash feed of baby chicks. This is rather expensive but a paying proposition when good results can be had. Concrete or dressed brooder floors are very necessary for daily cleaning and disinfecting with Dr. LeGear's Dip and Disinfectant.

Three teaspoonfuls of commercial muriatic or hydrochloric acid mixed with one gallon of water and put out for the chicks to drink in crockery jar has been recommended by some. A better way, however, is by mixing two or three teaspoonfuls of Dr. LeGear's Dip and Disinfectant to one gallon of water.

Leg Weakness—Rickets.—Leg Weakness, or Rickets, which are known to be one and the same disease, is a nutritional trouble of growing chicks, caused by feeding an unbalanced ration; that is, some of the important elements of growth and development are lacking in the diet. Baby chicks are very sensitive to Leg Weakness. This one trouble is the cause of tremendous losses in growing chicks.

Causes.—Modern investigations of food substances show that certain of them have the power to make the young grow and develop normally, while other substances will not. These unknown elements are called Vitamines. Four of them are pretty well known. They are designated as Fat Soluble A, Water Soluble B, Water Soluble C and Fat Soluble D, the latter being the anti-rachitic factor.

Vitamine D is of the highest importance in the growth of baby chicks. It governs the proper development of bones, and it regulates the proportions of phosphorus and calcium in the blood. It is a Fat Soluble substance and is contained abundantly in Cod Liver Oil. It is also found in egg yolks, whole milk, meat and certain green foods and vegetables. If this substance is low or lacking in the ration, the chicks are almost sure to take Leg Weakness, unless they are in the direct sunshine.

Symptoms.—The name practically indicates the symptoms. The chicks apparently are in good health, but have a weak, unsteady gait which develops into difficulty in walking, causing them to wobble and tumble about and gradually become unable to walk, and are found sitting all the time. The appetite at first seems good, but it soon becomes irregular, the chicks lose flesh rapidly and soon die.

Treatment.—Get the chicks out on the ground in the sunshine, especially on sod-covered runs. Chicks will do better on Nature's own floor than on any other. Give them plenty of exercise. Make them scratch in deep litter, chaff, cut clover or straw for all their grain.

Certain food materials are known to have distinct anti-rickets properties, namely: Hen's egg yolks, cod liver oils and milk. Mix in the ration one-half to one per cent of cod liver oil, or one egg daily, per twenty to thirty chicks.

Direct sunlight or sunshine is known to exert a powerful influence in preventing and curing Leg Weakness. The sunshine must come direct onto the chicks and not even through glass. Either get the chicks out-of-doors into the sunshine or remove the glass windows so that the sunlight will shine directly onto the chicks unobstructed, even if but for thirty minutes each day. The longer the better.

Above all include an abundance of fresh, green food, which also is rich in Vitamine D, and which also, in addition, furnishes the necessary bulk or roughage and the necessary laxatives. Also mix Dr. LeGear's Poultry Prescription in the mash feed for the whole flock.

Limberneck.—Strictly speaking, this is a symptom of a diseased condition rather than a distinct poultry disease. It is common in all parts of the country and easily recognized by the peculiar appearance and the partial paralysis of the neck muscles, which has given rise to the name "Limberneck." This is one of the diseases of poultry that is not well understood. The bird loses control of its head and neck and stands or squats with its neck either limp or arched, the top of the head resting on the ground between the feet. Limberneck is either due to eating spoiled or decayed meat, a dead animal or poisonous worms, or maggots, which causes the formation of a poison in the system which produces the disease. It is very similar to a ptomaine poisoning and often causes heavy losses.

Treatment.—Shut all the poultry up in a pen for a few days so as to keep them from getting any spoiled, indigestible food to eat. Search your poultry-house yards and fields for a dead animal or fowl and have it burned or buried deeply. Give all the sick as well as the well birds Dr. LeGear's Poultry Prescription twice a day in soft cooked food. See that all the food given is of the best quality. The sick birds may be given a small dose of turpentine (5 to 10 drops to chicks and 1 teaspoonful to grown fowls), mixed with an equal amount of sweet oil. Give the flock large doses of Epsom Salts in wet mash feed.

Corns are shown by a hard formation in the bottoms of the feet. They are seen more frequently in heavy birds and in those that sleep on high roost and have to jump from roosts onto the hard floor or ground. In some cases the bird is quite lame, and the foot may also be swollen to some extent.

Treatment.—The treatment of corns is usually quite simple and successful. Remove the cause by either lowering the roosts or providing a soft place for the birds to jump onto. Remove the hard, dry substance which forms the corn and apply a little of Dr. LeGear's Dip and Disinfectant, full strength, to the raw, bleeding surface and keep the bird in a dry, clean place for a day or two. A little vaseline may be applied to the corn once a day for a few weeks.

Bumble Foot.—This is a tender, swollen condition of the foot, caused either by a bruise from flying from high perches or from trees, or from something penetrating the bottom of the foot, as a splinter, piece of glass, or the like. There may be just a swelling and inflamed condition of the foot or there may be a carbuncle or abscess formed that is very painful to the bird. This trouble is often caused by horses or other heavy animals stepping on the bird's foot.

Treatment.—If the swelling is hard and painful, bathe it twice a day for a few days with hot water and Dr. LeGear's Liniment. If an abscess has formed, open

it and let the pus escape and syringe out the cavity with warm water, into which is mixed some of Dr. LeGear's Dip and Disinfectant, one tablespoonful to a pint of water. Repeat the treatment every day or two until relieved. Keep the bird in a clean place with plenty of clean straw bedding, and bandage the foot. For injuries, the foot can be washed in the same strength disinfectant solution as directed above, and the bird kept in a clean place for a few days.

Simple Cold Wrongly Called Roup.—Perhaps the most common ailment of poultry the world over is simple cold or simple catarrh. Sometimes it attacks only a few fowls in a mild form from which they recover in a few days without treatment. At other times it affects almost the whole flock and may linger on in a chronic form. A cold often weakens a fowl so that it more readily succumbs to other diseases, like Roup, etc.

With the majority of poultry owners any diseased condition of the nose, eyes, or head is called roup when it often is not roup. Roup is a contagious disease, and is usually associated with Sorehead and Diphtheria and will be considered later.

Causes.—Cold is usually caused by faulty housing and bad weather conditions, and not from a specific infection. It is not catching, therefore will not spread to the flock by contact.

Exposure to drafts, especially while on the roosts at night, poorly ventilated houses, overcrowding, exposure to dampness, cold winds, etc., are the most common causes of Cold.

Symptoms.—At the outbreak cold resembles roup very closely, but later on roup develops into a more severe form, while cold as a usual thing does not cause the fowls to become very sick, and is not usually a serious condition. There is a watery discharge from the nostrils and sometimes from the eyes, and the fowls may sneeze and have difficult breathing. Sometimes the eyes become swollen and cause the eyelids to close up.

Treatment.—As this disease resembles very closely roup, it is well to be on the safe side and remove all sick birds from the flock and put them in well ventilated, dry, well lighted houses, and give them soft nourishing food and green food to eat.

Simple cold is not catching but as roup is, as I said before, it is well to be on the safe side and remove all affected birds from the flock at once.

Give all of your fowls large doses of Epsom Salts. Give one pound of Epsom Salts to 100 birds in their wet mashed feed every week for two or three weeks.

If one or a few birds are affected, give each one Dr. LeGear's Roup Pills once or twice a day exactly according to directions until they are fully recovered. If a large number of fowls are affected I would recommend dissolving Dr. LeGear's Cold Tablets in all the drinking water you give them, or give Dr. LeGear's Roup Remedy in soft wet feed. Thoroughly clean up and disinfect your houses with Dr. LeGear's Dip and Disinfectant, and see that they are well ventilated, free from drafts and perfectly dry, especially the sleeping quarters.

Roup, Chicken Pox, Diphtheria.—Enormous losses are suffered each year from a group of contagious diseases that are particularly prevalent during the fall and winter, when the weather is damp and cool, with fowls that are kept in unclean and poorly ventilated quarters. These diseases are given a variety of names, but Roup, Chicken Pox, and Diphtheria are the most prevalent and universally used.

All kinds of fowls are subject to these diseases. Investigations prove that all of these troubles have a common cause, and that their names simply indicate manifestations or symptoms of the same disease.

Some claim that Chicken Pox and Diphtheria are caused by the same germ, but that roup is caused by a different and distinct germ. Just what these germs are has not yet been definitely decided.

Roup.—Roup is a contagious disease that often causes heavy losses. It is more commonly seen during the fall and early winter when the weather is damp and cold. Once introduced in a flock it may remain for years, as it is often hard to get rid of. Young birds and fowls with weakened constitutions are especially susceptible. If a fowl has simple cold or catarrh, they are more susceptible to roup, as the mucus membranes of the head are inflamed and the germs multiply much more rapidly.

Symptoms.—The symptoms are a sudden and severe cold with increased temperature of the head, generally diarrhoea and a weakened condition. In very severe cases death may result in a few days. Usually the bad cases linger for a week or more, and show increasing symptoms. The discharge, instead of remaining fluid, as in simple catarrh, becomes thick and cheesy and may obstruct the nasal passages so that the bird is compelled to breathe through its mouth.

The inflammation extends to the eyes and causes them to swell up and close. The discharge from the nose takes on a very offensive odor.

Roup may be brought onto a place on the clothing or shoes of people who have recently visited an infected flock, or by bringing new birds from infected premises and from poultry shows, etc.

Treatment.—Although this is a very fatal, contagious and difficult disease to handle if neglected, it can be successfully handled and nearly all sick birds cured if given the proper care, treatment and handling. You must be very thorough and persistent in your efforts to be successful. Put all sick birds to themselves in clean,

dry, open-front houses if possible, free from drafts. Open-front houses are very important in this disease, as fresh air is absolutely necessary. Thoroughly clean up all infected houses, nests, runs and quarters, and disinfect often and freely with Dr. LeGear's Dip and Disinfectant to assist in preventing spread of the disease. Burn all the droppings from the sick birds, and also burn all litter, loose material, etc., that come in contact with them. Always change your clothes and disinfect your hands and shoes before handling or going among healthy fowls, after you have been among or handled the diseased.

Give each affected fowl, if only a few are affected, one of Dr. LeGear's Roup Pills night and morning for several days, according to the directions.

If a large number of fowls are affected, dissolve some of Dr. LeGear's Cold Tablets in their drinking water, and allow them no other water to drink, or mix some of Dr. LeGear's Roup Remedy with their soft feed, according to the directions.

Feed them soft, nourishing food and all the green feed you can get them to eat. Give Dr. LeGear's Cold Tablets or Dr. LeGear's Roup Remedy to the whole flock in their drinking water or feed. Also Dr. LeGear's Poultry Prescription mixed with the feed is very valuable in a case of this kind.

Give the whole flock, sick and well, large doses of Epsom Salts once a week for three or four weeks in wet mash feed. Give 1 pound of Epsom Salts to each 75 of the larger breeds, or 1 pound to each 100 of the smaller breeds, as Leghorns.

Plunge their heads, eyes and all, once a day into a solution made by mixing one teaspoonful of Dr. LeGear's Dip and Disinfectant with one quart of warm water. Hold their heads into this solution long enough so that the solution will penetrate into all cavities of the head. Wash the eyes and nostrils clean at the same time with this same solution. Squeeze gently down on the nostrils with your thumb and forefinger and work the mucus and discharge out. You can also inject into each nostril with an ordinary tin oil can every day after washing a few drops of a solution made by mixing equal parts of Dr. LeGear's Dip and Disinfectant and Sweet Oil.

When sores and cankers appear in the mouth, remove the white membranes and scabs and with a swab apply a little of Dr. LeGear's Disinfectant solution. If the eyes are sore, wash them clean with the solution you dip their heads in, and apply some plain vaseline well into the eye.

Diphtheria.—Diphtheria may have many of the symptoms described for roup, but it is distinguished from it by the formation of very thick, tough, grayish or yellowish patches or false membranes on the mucous surfaces of the nostrils, eyes, mouth, throat, and air tubes, and sometimes the gullet, crop, intestines and other organs become affected also.

It is a contagious disease and caused by the same germ as chicken-pox, and is often seen in connection with chicken-pox.

This disease frequently takes on a very malignant form and causes heavy losses in a flock, while other outbreaks are rather mild. If the thick, tough, yellowish patches in the mouth can be removed it should be done every second or third day and the places touched with either Dr. LeGear's Dip and Disinfectant or Peroxide of Hydrogen.

Give internal treatment as recommended for roup, and also carry out all sanitary and disinfecting precautions.

Chicken-pox or Sorehead.—This is a disease that is often seen in connection with roup, diphtheria, etc., and is detected by the formation of sores or watery blisters on the comb, wattles, face, etc. It is seen more frequently in the warm southern climates, but may be seen in any climate.

The fall of the year is the most prevalent time that the disease appears. It is often spread by mosquitoes. They carry the germs from an infected to a healthy fowl. Catarrhal manifestations are nearly always seen in connection with this disease and the birds have more or less fever.

Treatment.—As this is a contagious disease, every effort should be made to isolate the sick birds, and thoroughly clean up and disinfect all the premises, roosts and poultry houses with Dr. LeGear's Dip and Disinfectant.

Spray the disinfectant into all dark corners where mosquitoes are liable to be lodged during the day time. Give all of your fowls, especially the young birds, large doses of Epsom Salts during the fall of the year, especially if the disease appears. Give one pound of Epsom Salts in wet mash feed to each 100 fowls once every ten days. Apply to all the affected parts some of Dr. LeGear's Sore Head Remedy once a day. Remove all sick fowls from the rest of the flock.

Also give Dr. LeGear's Roup Pills for individual cases, and Dr. LeGear's Roup Remedy if the whole flock is affected.

Dr. LeGear's Poultry Course contains information which it has cost thousands of dollars and years of study and experimentation to gather. You'll find the volume on Poultry Diseases alone worth hundreds of dollars to you. If you do not have this course, read about it on the back cover page of this book.

Canker is an ulcerative condition of the mouth and throat, which may be seen at all seasons of the year, but more frequently during the winter months. The ulcerative patches may be seen on any part of the mucous membrane of the mouth, tongue or throat. A white or yellowish leathery substance forms in the mouth,

throat, etc. It is very often seen in connection with roup, colds, etc., and in these cases is usually more difficult to overcome.

Treatment.—Try and remove the leathery substance with an instrument or a toothpick, and touch the spots with peroxide of hydrogen or a little of Dr. LeGear's Dip and Disinfectant, once per day until relieved. Keep the affected fowl to itself and give soft warm food for a few days, into which is mixed large doses of Dr. LeGear's Poultry Prescription. To individual birds give Dr. LeGear's Roup Pills twice each day. Dissolve some of Dr. LeGear's Cold Tablets in the drinking water for your whole flock, and let them have no other water to drink.

Diarrhoea.—Simple diarrhoea is an irritation of the digestive organs, causing a whitish, yellowish or even greenish loose discharge from the bowels, and may result from a variety of causes. The more common causes are dampness, overcrowding, eating sour, dirty food, too much mashes, drinking filthy, stagnant water, etc. Diarrhoea may be produced by indigestion or by poisoning, and it also is seen in connection with chicken cholera.

Treatment.—Remove the cause and correct the diet. Give Dr. LeGear's Poultry Bowel Regulator Tablets in drinking water and allow no other water to drink. Give fresh water containing tablets once or twice a day in clean vessels. Feed only dry feed, and see that it is of the very best quality. Keep crushed charcoal, oyster shells and grit before them at all times.

Cholera.—Chicken Cholera is a disease that is not well understood by poultry raisers. Every disease of poultry accompanied by a diarrhoea or water discharge from the bowels is called Cholera. This is not the case. True Chicken Cholera is a rare disease. Very few people have ever seen it. It is a rapidly fatal contagious disease affecting all kinds of poultry.

Causes.—The direct cause of Cholera is a germ which is caused to rapidly multiply by improper feeding, unsanitary surroundings, exposure to drafts and bad weather. Overcrowding, feeding sour and sloppy mashes, or damaged, inferior feed of any kind may cause forms of Cholera. It is often brought to a poultry yard by bringing new birds from an infected flock, or the germs of Cholera may be conveyed on coops, utensils, or on the clothing of a person from an infected yard, etc.

Symptoms.—Diarrhoea is usually a very prominent symptom. The urates, which is that portion of the excrement thrown off by the kidneys, and which in healthy fowls is white in color, becomes yellow, or even green in color. The sick bird shows great thirst, shows a lack of life and spirits and mopes around with ruffled feathers, half asleep, etc. The comb becomes pale or very dark and the fowl loses its appetite. Fowls affected with this disease usually die within thirty-six hours. Sometimes the disease runs rapidly through a flock, destroying the greater part of the birds in a week, or it may take on a more chronic form, extend slowly and remain on the place for several months. This disease attacks every kind of domesticated fowls.

Treatment.—Isolate the sick fowls in comfortable quarters, and feed them only the very best quality of feed and water. Thoroughly clean up and disinfect your chicken houses, sheds, runs, etc., with a strong solution of Dr. LeGear's Dip and Disinfectant. See that your poultry houses and roosts are absolutely dry, well lighted, free from lice and drafts. Give the sick fowls Dr. LeGear's Poultry Bowel Regulator Tablets in all their drinking water. Give all your fowls Dr. LeGear's Poultry Prescription once each day in wet feed.

See that all your feed is of the best quality, and confine your fowls if you think they are getting food that does not agree with them. All fowls that die should be burned or buried deeply. Sprinkle slacked lime or sifted coal ashes on the dropping boards every day after cleaning them as long as the disease is on your place.

The droppings board should be cleaned every morning, and the droppings buried.

Avian Tuberculosis.—Tuberculosis is more prevalent among poultry than is generally thought. I receive reports frequently from various sections of the United States of outbreaks of what I consider to be tuberculosis. It is not nearly so prevalent as it is in dairy cattle, but it seems to be gaining a foothold in new sections by the introduction of new breeding birds from infected flocks. Fowl Tuberculosis, so far as known, is not communicable to man, and is not the same disease as that found in other farm animals.

Symptoms.—The disease cannot positively be recognized by external symptoms, but there are some general symptoms that should be looked upon with suspicion. Losing flesh (going light), weakness, lameness, paleness of the comb and wattles, etc., are the more common external manifestations of the presence of the disease. A post-mortem examination usually shows tubercles on the liver, spleen, and intestines. They are wart-like growths of different shapes, varying in size from very small up to as large as a small hen egg.

Treatment.—All suspicious birds should be killed and burned or buried deeply. Thoroughly clean up and disinfect all the houses, runs, coops, etc., where the suspicious fowls were kept with Dr. LeGear's Dip and Disinfectant.

Fowls can be tested for tuberculosis the same as cattle, and all affected ones located. This is done by injecting a specially prepared serum in one wattle of suspected fowls. A swelling of the wattles following the injection of the tuberculin is regarded as indicating tuberculosis.

Tuberculosis is not generally regarded as being easily transmitted from man to fowls and vice versa. But cases are reported where whole flocks became affected by having an attendant who had tuberculosis. The fowls would eat the sputum of the attendant and contract the disease.

Rheumatism.—This usually affects all parts of the body, but the most noticeable parts affected are the feet and legs. There is usually some rise in temperature, swollen joints, contraction of some of the muscles and pain in walking. Rheumatism may result from long exposure to cold, damp houses. It is most likely to appear during damp winter weather in adult birds, and during the brooder stage of chicks.

Symptoms.—There is more or less stiffness and lameness in walking. The fowl has a tendency to sit down most of the time, and appears inactive and listless. There is usually inflammation and swelling in the joints of the legs, and there may be contraction of the muscles, tendons, etc. Sometimes rheumatism will affect the heart and cause sudden death, but as a usual thing it is not fatal.

Treatment.—Give the affected fowl dry, sunny, comfortable quarters and provide plenty of green feed. In the winter time green feed can be supplied in the form of sprouted oats, cabbage, mangles, steamed clover, alfalfa, etc. Rub the swollen joints two or three times per day with Dr. LeGear's Liniment. Give the affected fowl one teaspoonful of Epsom Salts as a purgative. Also large doses of Dr. LeGear's Poultry Prescription twice each day in feed or as a pill. Three grains of baking soda, or one grain of salicylic acid given twice each day is beneficial in some cases.

White Diarrhoea.—This kills hundreds of thousands of baby chicks each year; in fact, it causes the loss of more baby chicks than all of the other diseases combined. There is a great difference of opinion as to the exact cause of White Diarrhoea. The disease usually affects chicks that are from three days to two weeks old, and in most cases proves fatal, or leaves the chick in a condition that it is worthless. Some people consider all the cases of bowel trouble in baby chicks as White Diarrhoea. This is not the case. Real White Diarrhoea is a fatal, contagious disease and rapidly runs through a brood and destroys a large percentage of the chicks. Some large breeders report losses as high as from eighty to ninety per cent of some hatches from this disease. The germs of the disease have been located in the egg passages of laying hens; also in the whites of eggs and on egg shells. White Diarrhoea is accompanied by a white, pasty discharge which pastes up the down, forms in hard, dry masses and closes up the vent.

Treatment.—On farms and yards where the disease exists, every effort should be made to prevent it. Dissolve Dr. LeGear's Chick Diarrhoea Tablets in the drinking water, as a preventative, and where disease actually exists, and allow them no other water to drink. Keep the tablets in all drinking water until the chicks are three or four weeks old. Thoroughly clean and disinfect your incubators, just before each batch, as per the instructions under "Incubators." All brooders, boxes, coops, runs, etc., should be kept as clean as possible, and disinfected often with a strong solution of Dr. LeGear's Dip and Disinfectant. Do not feed the baby chicks until over two days old, and then do not feed any wet feed. Feed them only the very best of feeds, and give them all the buttermilk they will drink. Keep the drinking founts clean and give fresh water frequently. Baby chick size charcoal should be given each day liberally, as well as chick grit. After the chicks are five days old it is beneficial to keep dry wheat bran before them in pans at all times.

Sore Eyes are seen quite frequently as the result of injuries, also in connection with such diseases as roup, sore head, canker, etc.

It is quite common for one of the ulcers or nodules of Sore Head to form on the eyelid, and when it does it causes more or less inflammation, soreness and swelling of the eye, causing the eye to gum up and close. Sore Eyes may also be caused by the introduction of some foreign matter into the eyes, such as dust, chaff, etc.

Treatment.—Remove the cause, if possible, and bathe the eyes with warm water, into which is mixed one teaspoonful of Dr. LeGear's Dip and Disinfectant to the quart of warm water. If the fowl has roup, dip the head, eyes and all into this solution and wash thoroughly clean. Give Dr. LeGear's Roup Pills. Dissolve some of Dr. LeGear's Cold Tablets, according to the directions, in the drinking water for the whole flock, and let them have no other water to drink. If there are sores on the eyelids apply Dr. LeGear's Sore Head Remedy to the sores and pure vaseline into the eyes. Pure, plain vaseline is the very best remedy you can put into the eyes when they are sore. Open the lids and put a liberal quantity into the affected eye. Treat the sore eyes twice each day.

Crop Bound.—This is a trouble seen quite frequently during the winter and spring, but may be seen at any season. Fowls that are confined to their coops during the winter will eat more or less of their scratching litter, which does not pass out of the crop, but packs together in a ball or wad that remains there until removed. Also fowls that are confined during the winter become very hungry for green feed and will eat dead grass or weeds, which may cause the trouble. A small quantity of indigestible matter in the crop may weaken it and prevent the grain from passing out and produce the trouble.

Inflammation in the crop, produced by bad feed or irritating substances being swallowed, causes an enlarged, sour, flabby crop and requires similar treatment.

Symptoms.—The first symptom noticed is usually an enlarged crop and a peculiar wrenching or movement of the fowl's neck as in the act of swallowing. On catching the hen (as hens are usually the ones affected) the crop may be found to be full and hard, or it may be found full and soft. If it is soft you can turn the bird's head down and gently press on the crop and a quantity of very sour liquid will run from the mouth.

Treatment.—When you discover the trouble take the bird up and put her in a small coop to herself where she can get nothing to eat, but keep fresh water before her. Give her one teaspoonful of Epsom Salts at one dose, and if that doesn't materially reduce the contents of the crop in 24 hours it will be necessary to resort to other methods of treatment. I used to operate on all such cases by cutting into the crop and removing the contents, but I have found that an operation is not always necessary.

Vent-Gleet.—This is inflammation of the lower bowels. It sometimes results in a serious condition, and may be spread by the male to the females in the flock. The inflammation may result in ulcers and filthy sores in and on the outside of the vent. The discharge at first may be watery, but later turns to pus and has a very offensive odor.

Treatment.—In these cases, isolate the affected hen and carefully examine the male bird and all the hens in the flock, and if any more cases are found isolate and treat them also. Wash the affected parts once a day with a solution made by mixing one teaspoonful of Dr. LeGear's Dip and Disinfectant with one quart of warm water. Each time after washing apply to the affected parts some of Dr. LeGear's Sore Head Remedy or Dr. LeGear's Gall Remedy. Give the affected fowl one teaspoonful of linseed oil or Epsom Salts. Give large doses of Dr. LeGear's Poultry Prescription twice each day for some time. Feed plenty of green feed and soft feed, such as table scraps, etc.

Going Light.—This means losing weight. It is the result of some debilitating, wasting condition that is not well understood. A good many cases of Going Light are caused by tuberculosis. It is called "Going Light" simply for want of a better name. There is no noticeable indication of disease. The fowl will appear listless, have a dejected appearance and lose weight. They will usually have a very good appetite, but food does them very little good. They will lose flesh until there appears to be nothing left except skin, bones, and feathers. They will continue to lose flesh until death claims them.

Treatment.—The treatment of this trouble is very unsatisfactory. I doubt, if a genuine case of Going Light was ever cured. Some cases of Loss of Flesh, caused by some debilitating disease, can be cured, but not a case of Going Light. If you wish to try treatment I would advise a purgative of one-half teaspoonful of Epsom Salts and large doses of Dr. LeGear's Poultry Prescription. Give twice a day in good, nourishing diet. Feed all they will eat of good, substantial food.

Worms.—Intestinal worms in poultry are becoming very common in most sections of the country and are causing heavy losses in many flocks. It is very difficult to detect the trouble unless by a post-mortem examination. The worms become very numerous and cause digestive disorders, loss of flesh and vitality, disease and death.

The positive way of detecting worms is by examining the droppings, to hold a post-mortem, or to look for them when dressing fowl for the table. Worms are more common in young, growing stock, but are also in fowls of all ages at all times.

Treatment.—Gather the droppings every morning and put them where the fowls cannot get to them. Infested droppings should not be used for fertilizer on fields over which poultry are allowed to run.

Place poultry netting under the roosts to keep the fowls from walking on the dropping boards, and picking up the worm segments they find in the droppings.

Bare yards that are used regularly as poultry runs should be covered with a heavy coating of lime, plowed or spaded under and some quick-growing grain planted. Disinfect often with Dr. LeGear's Dip and Disinfectant.

Give each fowl over two pounds in weight, one of Dr. LeGear's Worm Pills. For small or young fowls under two pounds in weight, give one-half pill. Open the fowl's mouth and put the pill well down the throat with your finger. This is easily done with a little practice. Dr. LeGear's Worm Pills are good for round worms, pin worms and tape worms.

Or two pounds of Dr. LeGear's Poultry Worm Powder with each 100 pounds of dry mash, and keep some of this dry mash in hoppers before the birds all the time, and once a day wet some of this dry mash with a little milk or water, and put it out where the fowls can eat all of it they wish in twenty minutes.

The pill treatment is the best as each fowl gets an equal amount and one treatment each six months is sufficient.

Egg Bound.—This is a condition where a hen wants to lay and can't. For some cause she cannot pass her egg. It's usually due to the hen being too fat and is seen more frequently in old hens. Sometimes an egg is too large to pass, such as

a double-yolk egg. Egg Bound is not a very common trouble. I have never had a case of it among my hens. It is seen more frequently during the spring and summer, after the hens have been confined all winter and fed heavy with little exercise to prevent an over-fat condition.

Symptoms.—The hen will be noticed to go on the nest frequently and strain violently and pass no egg. She appears listless and goes around with her tail drooped. The egg may be felt by passing the oiled finger carefully so as not to injure the parts.

Treatment.—Hold the posterior part of the hen in a pan of warm water for half an hour or hold her vent in the steam of boiling water for half an hour. Then inject carefully a small quantity of sweet oil into the vent and with a gentle pressure try and assist her in passing the egg. If this fails, you may have to insert the oiled finger and break the egg and let the contents pass. If you do this, try and remove all the egg shell.

Give her one-half teaspoonful of Epsom Salts and repeat the dose in five days. Feed her green feed and soft feed for a few days. If the hen is over-fat reduce her grain feed for several weeks and make her exercise.

Egg Eating is a bad habit, usually the result of overcrowding, lack of exercise, and the use of low nests that are open to the light. The habit of egg eating is often started by the hens finding a broken egg under the roosts. They eat this and acquire a taste for more. The most satisfactory remedy is the use of dark nests that are elevated at least two feet above the floor. It is also well for a few china eggs to be left lying about the floor for the birds to pick at. Also feed your poultry Dr. LeGear's Poultry Prescription.

If the above remedies do not stop the habit, you might try breaking a small hole in each end of an egg and blowing out the contents. Then fill the shell with a mixture of strong red pepper and mustard. Put a few eggs so treated on the floor or ground where the hens can get to them. This, in some cases, will prove effectual. But by all means, keep your nests dark and feed plenty of crushed oyster shell at all times.

Whitewash.—Whitewash is not used about poultry houses as much as it should be. Its use denotes cleanliness, purity and beauty. Whitewash applied to the inner walls of poultry houses serves as a disinfectant and deodorizer and makes the walls white, neat and clean. It is well to apply it twice each year and put it on hot. Two or three ounces of Dr. LeGear's Dip and Disinfectant mixed with each gallon of whitewash will kill mites and certain insects where it is applied. It may be applied either with a brush or a spray pump. By the use of a spray pump the solution can be forced into all cracks and crevices and hiding places of mites and many of the insects and vermin that infest poultry houses. Ordinary whitewash is made by dissolving unslacked lime in water.

The Government whitewash is made as follows: One peck of lime slacked in boiling water and kept just covered by the water while slacking. Strain through coarse cloth. Add two quarts of fine salt dissolved in warm water, one pound of rice meal or ground rice boiled in water to a thin paste, one-quarter pound of whiting and half a pound of glue dissolved in warm water. Mix all thoroughly, and let stand covered for two or three days; stir occasionally. Heat the mixture before using. If this is made properly it will not rub off.

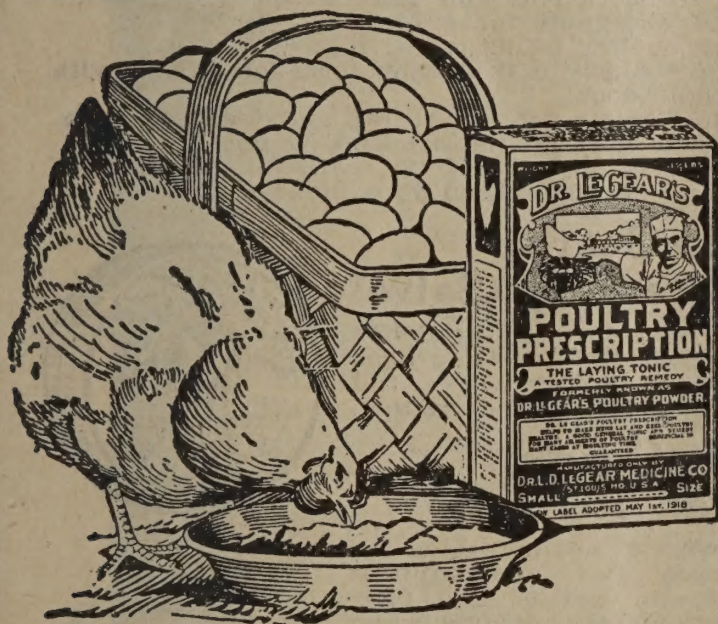
Molting.—This is the annual shedding of feathers by poultry, and it is a natural condition. It usually takes place in August or September, but may take place earlier or may come considerably later. Some fowls will shed nearly all of their feathers at one time, and the new coat of feathers will be grown in five or six weeks, while others molt more slowly and irregular, and are two or three months getting their complete new coat of feathers. Very few hens will lay while they are molting. It takes all of their strength to grow the new feathers, consequently they stop laying. During the molt fowls should have special care, attention, feed and treatment, as this is the most trying time of the year for them. They should be kept in out of all bad weather, hot sunshine, etc., and fed all the green feed and sound grain they will eat. Some sunflower seed should be mixed with their grain feed and a little linseed meal added to the dry or wet mash feed. Milk or some form of meat should be fed quite liberally. It is a disputed question whether the early molter or the late molter is the best egg producer. Some claim the early molters are the best, while others claim the late molters are. My experience has been that hens that molt late are the best all-year-round layers.

Dr. LeGear's Poultry Prescription fed at the time of the molt is of great benefit to the fowls. It contains MINERALS for the feathers, bone and bone tissues—TONICS for the Blood, Nerves and Egg Organs—LAXATIVES for the Bowels—REGULATORS for the Digestive Organs. To be mixed in mash feed. Ordinarily, one pound of Dr. LeGear's Poultry Prescription is sufficient for 50 pounds of mash feed, but during the molt one pound for each 20 pounds of mash feed is recommended. See that every bird is free from lice by using Dr. LeGear's Lice Powder. Thoroughly spray chicken houses, roosts, runs, etc., with Dr. LeGear's Dip and Disinfectant.

Dr. LeGear's Poultry Remedies

These are the same prescriptions used by Dr. LeGear in his private practice as a Veterinary Surgeon during the past 35 years. All are the results of carefully conducted tests. They have been used by thousands of poultry raisers with splendid results during all these years.

Dr. LeGear Remedies are sold only by dealers, and under our positive guarantee that they will give satisfaction or your money will be refunded. Use a full package. If not fully satisfied with results, return the empty package to your dealer and he will return your money. What could be more convincing to you that Dr. LeGear's Poultry Remedies are reliable and dependable and will do all that is claimed for them?



Dr. LeGear's Poultry Prescription

Contains TONICS for the blood, nerves and egg organs—LAXATIVES for the bowels—REGULATORS for the digestive organs—MINERALS for the feathers, bone and bone tissues.

Should be mixed with all laying and feed mash. With each 50 lbs. of laying and feed mash mix one pound of Dr. LeGear's Poultry Prescription. During moulting time, and when disease is present, more should be used. (Some poultry men use as much as 2½ lbs. per 50 lbs. at such times.)

Furnishes essential elements for strong, healthy growth; builds up vitality; produces better fertility; gives maximum egg production. Quickens moult.

Any Dr. LeGear dealer can supply following sizes: 1½ lb. packages for 25 hens; 3¾ lb. package, 50 hens; 9 lb. package, 100 hens; 25 lb. pail, 250 hens; 100 lb. drum, 1,000 hens.

If you want bigger profits from your poultry, mix Dr. LeGear's Poultry Prescription with your mash feed. Use a full package. If not fully satisfied take empty package to your dealer and he will refund your money.

Dr. LeGear's Lice Powder

Quick and effective in getting rid of lice and mites on poultry or in nests. Kills them as if by magic. Put up in handy sifter top cans. Easy to apply. Get a can from your dealer and use it up. If not fully satisfied, return the empty can and he will refund your money.

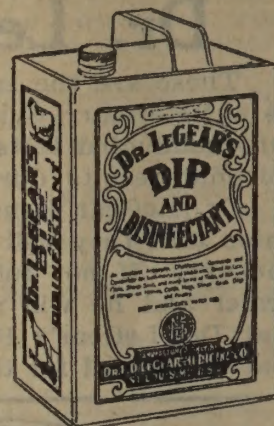
Dr. LeGear's Chick Diarrhoea Tablets

Contain intestinal antiseptics and astringents, which help to save baby chicks from White Diarrhoea, Indigestion and other troubles shown by loose bowels. They put chicks in good, healthy condition and regulate the system and bowels. Helps them to ward off disease and grow strong and vigorous. Put up in cans of 35 and 80 tablets each. Get a can from your dealer. If after using it up, you are not fully satisfied, return empty can to dealer and he will refund your money.



Dr. LeGear's Dip and Disinfectant

An excellent Antiseptic, Disinfectant, Germicide and Deodorant. Use it regularly to keep poultry houses, incubators, brooders, hovers, runs, roosts, drop boards, etc., sanitary and free from lice, mites and vermin of many kinds. Used in many treatments of sick and infected fowls as described in this book. Put up in 8 oz. bottles, quart, half gallon, one gallon, five gallon, and ten gallon cans, and 50 gallon drums. Ask your dealer for prices. Guaranteed to give satisfaction. Use a full can; if not satisfied your dealer will refund your money.



Dr. LeGear's Roup Pills

For use with individual cases. Put up in cans of two sizes—60 pills and 150 pills each—with full directions for fighting this devastating poultry affliction.

Dr. LeGear's Roup Remedy is in powder form for mixing with the feed for the whole flock.

Dr. LeGear's Cold Tablets for preventing and treating colds, are given to the whole flock in the drinking water.

Use a full package of above. If not satisfied take empty package to dealer and he will refund your money.

Dr. LeGear's Head Lice Remedy (Salve)

A splendid way to get rid of head lice on baby chicks, older chicks, setting hens and all kinds of poultry, pigeons and birds. Use a full 2-oz. can. If not satisfied, your dealer will make refund.



Dr. LeGear's Sore Head Remedy

A very fine antiseptic, healing salve for Sore Head, Chicken Pox and injuries about the head, comb, wattles and feet. Will give very satisfactory results when used according to directions. Use a full 2-oz. tin box. If not fully satisfied, your money will be refunded by your dealer on return of empty box.

Dr. LeGear's Poultry Bowel Regulator

An aid in overcoming many cases of loose bowels and diarrhoea. Cans contain 30 tablets, 20 grains each. Use in drinking water according to directions. If not satisfied with results your dealer will refund your money.



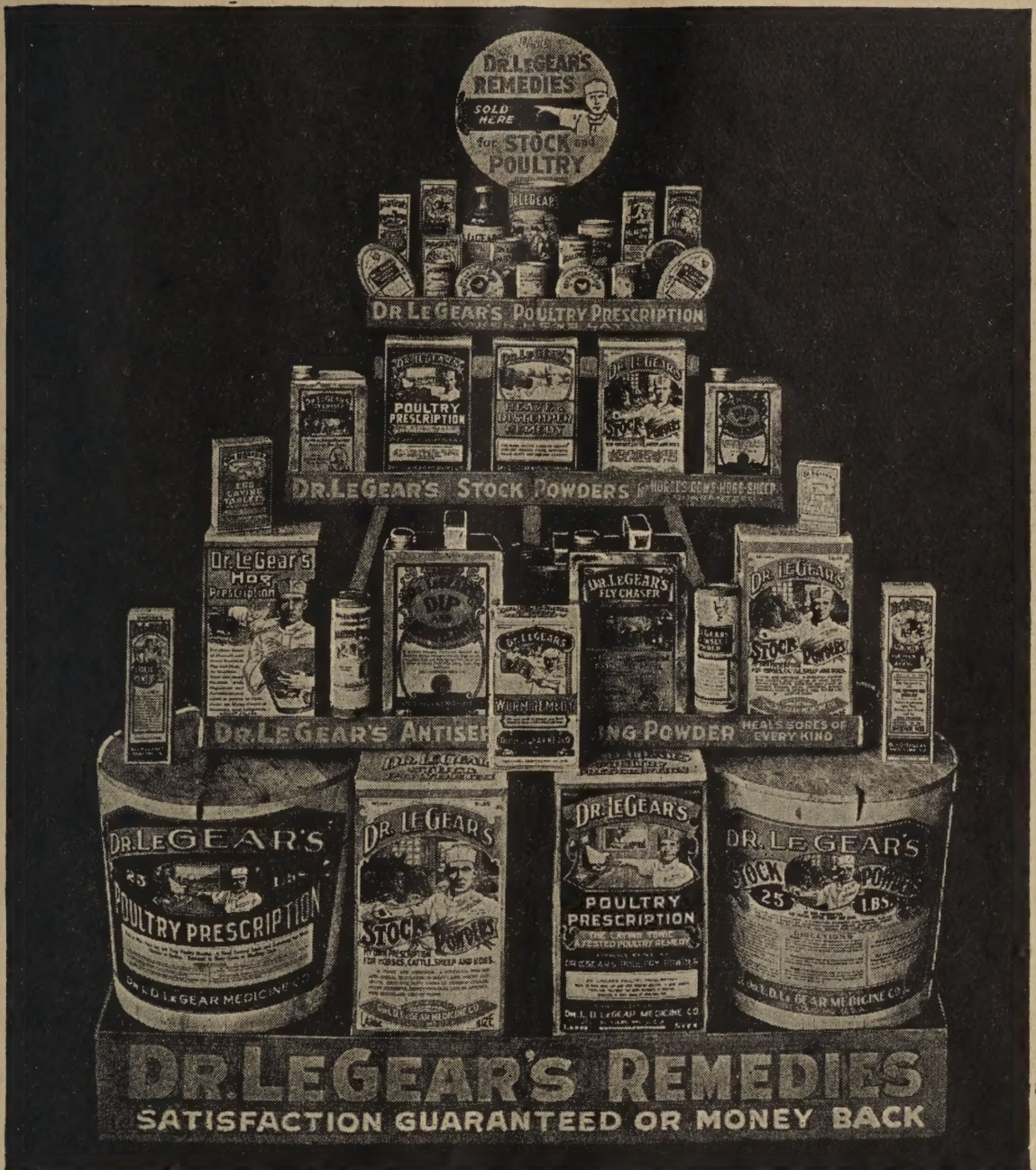
Dr. LeGear's Worm Pills

For individual treatment for intestinal worms in poultry. Will rid fowls of long round worms, tape worms, and pin worms. One pill to each grown fowl is a dose. Put up in cans containing 50 pills and 100 pills. Use a full can. If not satisfied, take empty can to your dealer and he will refund money.

Dr. LeGear's Poultry Worm Powder is for use in mash feeds for the whole flock. 4 lb. packages and 25 lb. pails. Use a full package or pail. If not fully satisfied your dealer will refund your money.

Dr. LeGear's Fly and Insect Powder

This is the help you need to keep lice and mites off of baby chicks. Four sizes—Bellows boxes; 2 oz. cans; 4½ oz. cans; 10 oz. cans. Use a full package. If not satisfied, your dealer will refund your money on return of empty package.



Dr. LeGear's Poultry Remedies

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